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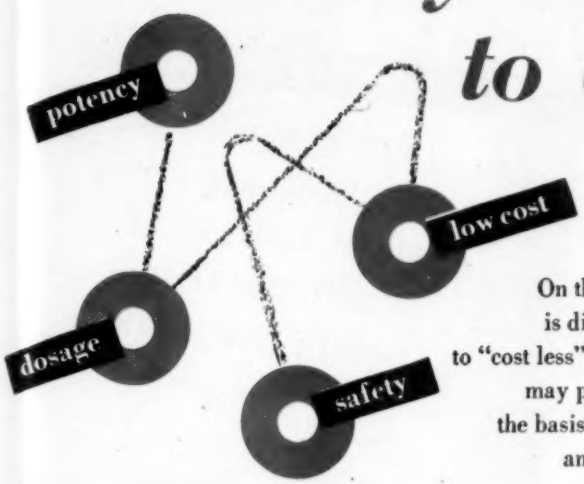
many things to consider



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Without sufficient replacements for these losses, we cannot continue to provide adequate medical and dental care for the almost 1,700,000 service men and women who are the backbone of our nation's defense.

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To alleviate this critical, impending shortage of professional manpower in the three services, I am urging all physicians and dentists who were trained under wartime A. S. T. P. and V-12 programs under government auspices or who were deferred in order to complete their training at personal expense, *and who saw no active service,* to volunteer for a two-year tour of active duty, at once!

We have written personally to more than 10,000 of you in the past weeks urging such action. The response to this appeal has not been encouraging, and our Armed Forces move rapidly toward a professional manpower crisis!

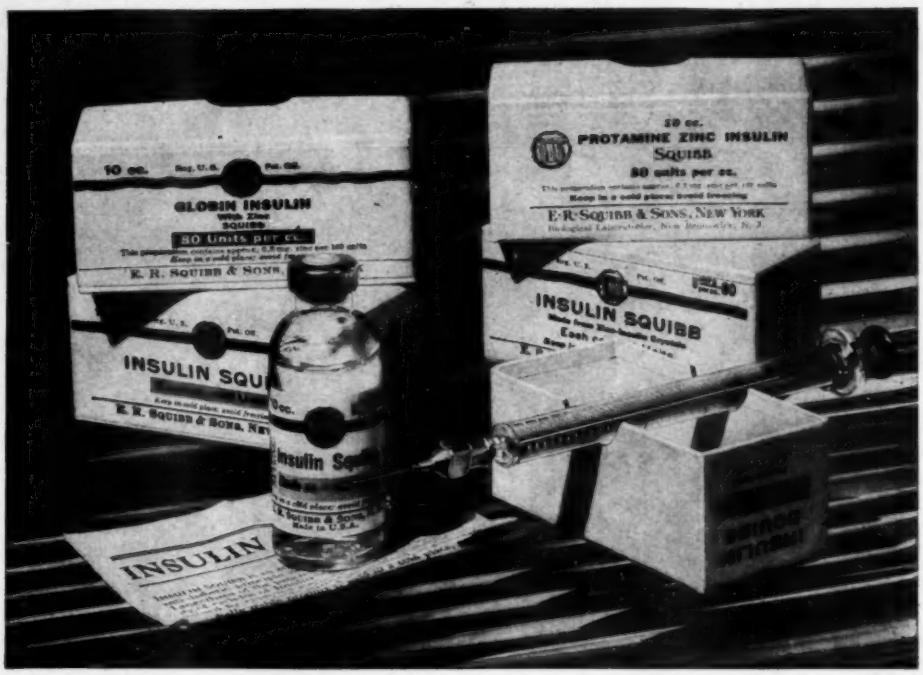
Many responses have been negative, but worse—a great number of doctors have not replied. It is urgent that we hear from you immediately!

We feel certain that you recognize an obligation to your fellow men as well as to your profession in this matter. We are confident that you will fulfill that obligation in the spirit of public service that is a tradition with the physician and dentist.

There is much to be said for a tour of duty with any of the Armed Forces. You will work and train with leading men of your professions. You will have access to abundant clinical material; have the best medical and dental facilities in which to practice. You will expand your whole concept of life through travel and practice in foreign lands. In many ways, a tour of service will be invaluable to you in later professional life!

Volunteer now for active duty. You are urged to contact the Office of Secretary of Defense by collect wire immediately, signifying your acceptance and date of availability. Your services are badly needed. Will you offer them?

Louis Johnson



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ARIZONA MEDICINE

Journal of ARIZONA MEDICAL ASSOCIATION

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EARLY DIAGNOSIS OF CERVICAL CARCINOMA

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EVERY year in these United States over 18,000 women die of carcinoma of the uterus. There must be at least 70,000 cases of carcinoma of the uterus, existing every year in addition to the 18,000 dying from the same disease. No one could accurately state how many cases of carcinoma of the uterus there are at present being treated. We can expect 3 per cent of all women reaching the age of 40 to die of carcinoma of the uterus. These 18,000 deaths a year can be looked upon as 85 per cent preventable, because if carcinoma is diagnosed early enough our cures run approximately 90 per cent. These deaths therefore, are preventable if only the patient would present herself early enough and if in addition, the physician who examines her is aware of the possibility of cancer and examines her with suspicion and intelligence.

EDUCATIONAL CAMPAIGN

The laity needs to be educated but we can also say the same about the medical profession. At least the whole burden by any means cannot be placed on the woman. The educational campaign must be conducted among practitioners of medicine as well as among the laity. About 80 to 85 per cent of carcinomas of the uterus are carcinomas of the cervix and the cervix is quite accessible, more so than the rectum or the stomach. We can, therefore, safely say that women develop carcinoma of the cervix only because their cervix has not been adequately watched and examined intelligently.

At the present time in most clinics the lag between the onset of symptoms and the first treatment for carcinoma of the cervix is running somewhere between six and seven months. A great deal of this lag is due to the women not knowing what the symptoms of cancer are, but some of it is also due to the fact that even when they present themselves the physician to whom they go does not recognize the symptoms, or if he does, he does not take the trouble to search for an early carcinoma that might be cured.

The main reason why women do not present themselves is because of modesty, and many times it is also due to the fact that in smaller communities, at least, these same patients know their physicians socially as well as otherwise. We find, therefore, that women hesitate to be examined as far as their genitalia are concerned and they harbor their symptoms much longer than they should. We should if possible, educate our high school girls and young women that their genitalia must be examined the same as the rest of their body. Even to this day in some of our so-called "modern hospitals" nurses entering training do not have a pelvic examination, but have a thorough physical examination in every other respect. Also, we have recently encountered the archaic laws of various states as far as the Army was concerned, in that in certain states in this country of ours a single woman can refuse to have her pelvis examined if she wishes to. Many of these women reached the Army and Navy without ever having had a pelvic examination and had been inducted into

the Army without the condition of her pelvis being known. These things as far as the laity are concerned can and should be corrected by education down in the early years. Many times, too, this same modesty on the part of the physician himself plays a part. We have the case reported by Wolfson in which a woman was examined repeatedly once a year for fourteen years by insurance examiners and then died of carcinoma of the cervix.

Many physicians do not examine the cervix of the uterus because they are somewhat confused and do not know an early carcinoma when they see one. A great many physicians are also not familiar with the symptoms of carcinoma or they are not equipped to take a biopsy if they do see a suspicious lesion. They have not studied the various methods that are used now for early diagnosis and they are primarily not suspicious that the woman has carcinoma. The idea has grown among the profession as well as the laity that any women over the age of 40 can bleed irregularly or have profuse periods without arousing anyone's suspicion or attention. As a matter of fact, only about 13 per cent of women in the change age will show either increased bleeding or irregular bleeding of a frequent character. From 5 to 10 per cent of those who do furnish irregular bleeding of a frequent character or hypermenorrhea are harboring an early carcinoma. It has recently been brought out by Corscaden and co-workers that if women furnish frequent irregular bleeding during the change age, or have hypermenorrhea during that time, they are about three and one-half times as liable to develop a post-menopausal carcinoma of the uterus. Another very strange thing one finds is that a great many members of the profession use the very questionable expression "taking Mrs. So and So through the menopause." The idea seems to be prevalent that once a woman stops menstruating she does not need to present herself for any further examinations and she will be safe for the rest of her life. As a matter of fact, the incidence of carcinoma of the uterus increases steadily from the age of 40 to the age of 70 where it then takes a moderate drop in the incidence curve, but cervical carcinoma is found more often between 40 and 60.

Another false impression among the profession and among the laity as well, is that if a woman has been given radium or x-ray treatments to bring on an artificial menopause, or for the purpose of treating small fibroids, and that treatment has resulted in the cessation of her periods, then she need not be further concerned about carcinoma of the uterus. Such is not the case. In fact, those receiving radium or x-ray to bring on the menopause are from two to three times as apt to develop a carcinoma of the uterus in later life than the average case that has not had radium applied. All women from the age of 40 on, should be examined regularly and every physician should be suspicious that he will find her with a carcinoma of the uterus. The lag of six and one-half to seven months between the onset of symptoms and the first treatment as stated before, is not entirely due to lack of attention paid by the laity. It is partly due to the fact that a great many practitioners are treating irregular bleeding today with hormones and vitamins rather than first making a diagnosis. Recently I was encountered by a medical man who stated that a patient of his in her 40's who was having very irregular and profuse bleeding was treated with Vitamin B and that as a result the last three periods had been regular and apparently normal. However, in questioning this physician it was found that no diagnosis had been made, biopsy had not been taken and curettage had not been done. In other words, the patient had been treated before the diagnosis had been made. I am quite sure that medical men are not treating duodenal ulcer or gastric ulcer without first making a diagnosis, and it only seems reasonable that we should subject women with irregular bleeding to an examination as thorough as that given when we suspect an ulcer of the duodenum.

This lag of time means a great deal in the cure of the disease because it has been estimated that from the onset of symptoms the chance of cure decreases about 2 per cent per week. The physician can feel quite justified in hospitalizing the patient for the purpose of doing cervical biopsy and diagnostic curettages just as the medical diagnosticians feel quite sure that they are justified in placing their patients in the hospital for x-ray examination of the gastro-intestinal tract. Certainly the expense, inconvenience, risk and all other procedures connected with trying to diagnose early carcinoma of the cervix and uterus is no more than that connected with the

intestinal tract. It would seem safe to say that if every irregular bleeder over the age of 40 was curetted and biopsied we would probably salvage more lives than are now being saved by the excessive routine use of barium meals, barium enemas and expensive x-rays that are going on in our hospitals every morning of the year. Randall of Rochester, N. Y. hospitalized 380 women over the age of 40 with irregular bleeding and it was found that 48 per cent had fibroids, 18 per cent were due to hyperplasia, 11 per cent due to polyps, 17 per cent classed as miscellaneous and 6 per cent were due to carcinoma. If, therefore, you exclude the grossly appreciable fibroids and other self-evident lesions, then malignancy constitutes 10 per cent of the remaining irregular bleeders over the age of 40.

If we are to treat these cases intelligently then the cervix of the uterus must be considered in the same way we consider the stomach and rectum. It is a distinct organ both from the physiological and histological standpoint. It is subject to diseases peculiar to itself and it probably receives more trauma than any other part of the body outside of the rectum. It is not an internal organ any more than the rectum, tongue or larynx.

ROUTINE EXAMINATION

When a woman presents herself to her physician either for a routine examination or because of some hypermenorrhea, irregular bleeding, post-coital bleeding or post-menopausal bleeding, what can we do to protect that individual and send her home reassured that she is not harboring some malignant growth?

First: We can take a *thorough history.* There is nothing like a thorough, well-written, authentic history to enable one to make a good diagnosis of any disease process. Many of these women do not know just when they bled. Many of them will tell you they never keep a calendar—all they know is their periods are apparently not normal and that at one time or another, very frequently indefinite in their minds, they know they did have some post-coital bleeding or irregular bleeding, or they speak of the period having re-occurred shortly after it was over. Every woman seems to be possessed with the idea that every time she finds blood coming from the vagina that it is to be called menstruation. Every physician knows that even when pregnant and threatened abortion occurs, they state they have begun to "menstruate." One of the things that can be done to help educate our women is to tell them there is such a thing as bleeding and that all blood that comes from the vagina is not to be classed as "menstrual blood." I am in the habit of giving my patients a chart on which every day of the month is recorded in four squares, and each square represents a certain amount of bleeding. The months are to be filled in on the left side of the chart and on the days that any bleeding occurs the amount of blood loss is to be made in a graph. When approximatetly six months have been covered that patient is to return for routine examination and present her menstrual chart at the same time. In this way women many times become aware that there is such a thing as bleeding and that all blood coming from the vagina does not constitute menstruation.

Second: One should take a vaginal smear or a smear of the external os of the cervix, fixing it in alcohol and ether and having it properly stained after the technic of Papanicolau. This should be done before palpation or inspection have been made. The routine use of the vaginal or cervical smear will probably result in the saving of many thousands of lives and will also reduce the mortality of carcinoma of the cervix by giving us one of the earliest diagnoses that we can possibly expect. It must be said in the beginning however, that before one can use the vaginal smear technic one must have an adequately trained cytologist who is capable of searching a slide and can say that it either contains or does not contain malignant cells. Of course, no one today accepts a vaginal smear as an absolute diagnosis, but we find such men as Dr. J. V. Meigs and his technician, Miss Graham of Massachusetts General Hospital are running an efficiency of 97 per cent. An error of 3 per cent certainly means that not many years from now we will be able to make a definite diagnosis with this technic and that biopsy and curettage may not be absolutely necessary to establish the diagnosis. At the present time, however, when one finds what a competent cytologist thinks is a positive smear, then that patient should be immediately hospitalized and thorough examination made to find the carcinoma. At the present time, there are probably many false positive smears being diagnosed, but on the other hand

we find that quite a number of cases are being reported where the smear remains positive and yet biopsy and curettage have not yet demonstrated the carcinoma, but when the uterus has been removed, the diagnosis has been found to be correct. It will probably not be long before we have in each medical center over the country trained cytologists capable of diagnosing a carcinoma from a smear and when we do, those in out-lying districts will be able to mail their smears to these centers and in time we will be able to give this protection to most of our women. It has been estimated that with four well-trained technicians, a suitable corps of voluntary or paid filing and mailing clerks and other assistants, 50,000 women could be surveyed once a year. Certainly with a small charge of say 50 cents a slide, a well-run laboratory could be maintained and 50,000 women have much more protection from carcinoma of the uterus than they now have.

Third: The next thing that can be done is *thorough palpation* of the pelvis. Bimanual examination will many times reveal the cause of the bleeding other than the cervix; the size of the uterus, its motility and the way the cervix feels as well as looks should be noted. Ovarian tumors and infectious processes are common causes.

Fourth: The most important is *visualization and inspection of the cervix and vagina.* Direct visualization and inspection of the cervix constitutes our best aid today regardless of the other tests which we have. In order to visualize the cervix, a speculum must be passed. Many times women present themselves for examination and nothing more than a bimanual examination is done and a speculum is not used to look at the cervix. The other very essential thing is the use of a strong light, well directed into the vaginal canal so that the cervix can be looked at with comfort and at the same time with some magnification, if such is available. I am in the habit of using a magnifying pair of glasses with a light between them which goes on the head with a headstrap similar to the ones used by the ophthalmologists. I find that the light shining directly into the vagina and the magnifying glasses over my own vision helps very much to show exactly the consistency, contour and other characteristics of the tissues examined. Colposcopic examination is not a necessity, but it certainly is an aid. So along with direct inspection, it is wise at times to use plenty of light and some magnification in order to become more familiar with what one is dealing with. Small probes should be handy so that the tissue can be touched to see if it bleeds readily. Special attention should be paid as to whether there is a whitish plaque-like area somewhat raised above the surface; especially should one note the edges of any eroded area and also the character of the eroded tissue itself, because it is in these abnormal tissues as a rule, that we find early carcinoma. Some one has made the statement that a carcinoma never rises on normal tisssue. This however, is probably a little exaggerated, but it certainly is true that early carcinoma will be found by inspection because it does not resemble normal tissue as seen on the normal cervix. The most important place for early carcinoma to arise is the external os where the junction of glandular and squamous epithelium occurs. Also, just inside of the external os one often finds a small carcinoma that was not expected. A small curette may be used while the patient is on the examining table.

Fifth: The procedure that can then follow inspection of the cervix is the *Schiller* test. We still find that Schiller's test is valuable in showing us glycogen-free areas and especially, those bordering the external os or bordering the small erosion that occurs around the external os. If a dull gray, plaque-like area presents itself running off from the external os or from the erosion and that area has edges that are a little raised, then Schiller's solution will accentuate the area. The original formula for Schiller's solution was Iodine 1 gram, Potassium iodide 2 grams and water 300 c.c. If both the iodine and potassium iodide are doubled in quantity the staining is more rapid. The iodine should be dissolved in saturated potassium iodide solution and then the water added. If we find the area is glycogen-free and especially, if there have been symptoms of irregular bleeding, post-coital bleeding or post-menopausal bleeding, then that area is where a biopsy should be made. Schiller's test is not diagnostic, but it certainly is a great aid and has caused many younger men to become more curious about the cervix and to help them to discover early carcinoma. I had the privilege of discovering an early carcinoma by using it about nine years ago on a woman who had just returned to the post-natal clinic of the Chicago Maternity Center for her final post-partum examination at the eighth week. A group of stu-

dents asked that they be shown the Schiller test. This was done and much to my surprise and everyone else's present, there was an iodine-free area running off of the external os between 2 and 5 o'clock with a border that was a little raised and that bled when touched with a probe. We took a biopsy of that area and found an early carcinoma from which came the same little arm of carcinoma in situ which Schiller has so well described. She was taken to the Evanston Hospital and further examination and biopsy made under anesthesia, and it was found that the entire carcinoma was about the size of an ordinary small green pea and that the biopsy had removed at least half of it. She is alive today, having been treated with radium followed by x-ray. This was before the days of vaginal smear and I feel quite confident that she is alive today only because our curiosity was present and this lead to the use of a very simple test which in turn, lead to the discovery of a very early carcinoma which would not have otherwise been noted.

Sixth: Biopsy of the cervix is something that should be and must be practiced more than we have in the past. It is somewhat a controversial subject as to whether we should perform these biopsies in the office or whether they should be performed under aseptic technic in the hospital. Certainly, if one sees a very suspicious area and he has a good cutting current radio knife he is justified, I believe, in taking the loop and cutting off a small piece of tissue in the office. Much time can be saved and a diagnosis obtained before the patient is in the hospital. If a woman over 40 presents herself and she gives a history that indicates she may have an early carcinoma, it is probably better to have that patient in the hospital under good conditions. Many times where one resorts to biopsy in the office enough biopsy material cannot be obtained, or many timess the only instrument available is the punch. The punch seems to mash the tissues together and gives a very bizarre cellular arrangement at times that renders it difficult to use as a diagnostic specimen. It would, therefore, seem wiser that every case that is suspected enter the hospital and be given a thorough examination under anesthesia so that adequate tissue can be removed and the patient will then be better able to keep from concern about whether or not she does harbor a malignancy.

It is very essential that these examinations be made before one treats the patient with hormones, vitamins and other things that are being used for women in the change age. If vaginal smears, biopsy and curettage do not show a malignant growth, but the patient still persists in spite of management to furnish us with the symptoms of carcinoma, then by all means we should examine her again and again. One examination, curettage or biopsy are not sufficient, many times. Just because one was made, say in 1946, there is no reason why another one should not be made in 1947 or even in six months for that matter. In other words, we must examine repeatedly, especially in all cases in which we are suspicious of a malignant growth.

SUMMARY

1. 18,000 deaths from carcinoma of uterus in this country every year can be looked upon as preventable. Probably 50 per cent of that responsibility rests with the laity, but certainly the other 50 per cent rests with the profession. It behooves every physician to be able to recognize carcinoma of the cervix when he sees it, or he should ask for aid from someone who does have that ability.

2. When a patient presents herself for a routine examination of her genitalia, or has come because of some irregular bleeding, then she deserves the benefit of everything known to the profession to protect her against the possibility of a malignant growth. She should have a speculum examination under proper light and with magnification. The cervix should be stained with Schiller's solution. A vaginal smear should be made and if necessary, she should enter the hospital for diagnostic curettage and biopsy of the cervix, making sure that nothing is left undone to unearth at the earliest possible moment any malignant growth that she may have.

3. In almost 50 years nothing new has been discovered for the cure of carcinoma of the cervix. We are still forced to use radium, x-ray and surgery and until something better is presented, it behooves us to make the earliest diagnosis possible, because it has been quite well established that the earlier the diagnosis is made, the higher curability will be.

THE DIFFERENTIAL DIAGNOSIS OF MULTIPLE NODULAR SHADOWS IN THE LUNGS*

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INTRODUCTION: — It should be understood in the outset of this presentation that it is not intended to be a clinical discussion of the conditions producing nodular lesions in the lungs, but only to illustrate a variety of shadows, as the roentgenologist sees them. Many of the films have not been conclusively proven to be the particular conditions of which they are offered as illustrations. However, they do portray the shadows which those conditions *would* produce. This is usually about as far as the roentgenologist can get toward a diagnosis. When he tells the clinician that such and such a roentgenographic picture *can be* the result of one or another of several conditions, and states an order of preference in interpretation,—based on the character of the shadows, he has gone as far as he is entitled to go, without functioning also as a clinician, by bringing other data into the diagnostic study.

During the first thirty years of the x-ray era, the lung lesions appearing on roentgenograms as disseminated nodular shadows were roughly divided into three groups; those regarded as miliary tuberculosis; those regarded as pneumoconioses; and a miscellaneous group which did not fit into either of these categories.

During the past twenty years, from the observations of clinicians, pathologists and radiologists, we have gradually learned that this simple grouping will not hold true, because a great variety of diseases will appear on roentgenograms as nodular shadows. The investigations of Sayre and Meriwether, about 1930, gave new impetus to our knowledge about nodular lung shadows. In some 8000 x-ray examinations made in a selected district in Oklahoma, they found 125 cases of miliary lung disease, which were neither tuberculosis nor silicosis, many of which showed calcification. They reported these as of unknown etiology, although about one-fourth of them showed Aspergillus in the sputum. During the past ten years there have been many investigations on histoplasmosis, resulting in the conclusion that the majority of instances of multiple calcification in the lungs probably are histoplasmosis, rather than tuberculosis, as once thought. Numerous other diseases have been shown to be associated, more or less frequently, with nodular lung shadows. To list the reports would occupy all the time available for this paper, so this will not be attempted. In 1942, Austrian and Brown, writing on what they called "miliary diseases of the lungs," gave a list of twenty-two conditions in which such shadows are usual or frequent. Since that time, or in the short space of seven years, further observations have doubled this list. A brief glance at these forty or more conditions will impress on us the great variety of diseases which appear on x-ray films as multiple nodular shadows. These are:

- Tuberculosis:
  - Miliary
  - Bronchogenic
- Pneumoconioses:
  - Silicosis
  - Anthracosis
  - Hemosiderosis
  - Beryllium poisoning
  - Nodular fibrosis from asbestosis, talc, bagasse, diatomaceous earth, etc.
- Pyemia (multiple abscesses)
- Bronchopneumonia
- Bronchiolitis (irritant fumes)
- Lipid pneumonia
- Psittacosis
- Brucellosis
- Tularemia
- Adenomatosis pulmonii
- Leukemia—Hodgkin's disease
- Xanthomatosis
- Idiopathic pulmonary fibrosis
- Cystic lung disease
- Infections by Fungi and Protozoa
  - Histoplasma capsulatum
  - Coccidioides immitis
  - Aspergillus
  - Penicillium
  - Mucor
  - Monilia
  - Blastomyces (torula and saccharomyces)
  - Toxoplasma
- Sarcoidosis
- Carcinomatosis
- Sarcomatosis

*Read, by invitation, before the Third Annual Lois Grunow Memorial Clinic Lecture Series, at Phoenix, Arizona, February 24-26, 1949.

Peripheral Vascular Disease
(Barden and Cooper)
Vascular congestion of heart disease
Intrinsic obstruction of blood vessels
Intrinsic disease of blood vessels (e.g., rheumatic fever)
Hypersensitivity states
Lupus erythematosus
Periarteritis nodosa
Scleroderma

Truly this is a formidable list and a demonstration of the impossibility of attempting a diagnostic interpretation of nodular shadows on the basis of x-ray appearance alone, without giving due consideration to the history, clinical symptoms, and laboratory tests.

This paper is devoted to multiple nodular shadows and little attention is paid to conditions with a single or even two or three circumscribed shadows. However, brief mention will be made of two such cases.

In 1941 a pre-employment chest film was made of a young man at one of the Arizona mining hospitals; it showed normal lung fields. In December, 1944, another film was made in connection with a routine physical examination; this was also regarded as negative. In January 1946, this young man developed cough and chest pain, and a film made at this time showed two large, smooth, round shadows, unequal in size, one on each side. Restudy of the film December 1944 now brought to light two small rounded nodular densities, corresponding in location to the larger shadows mentioned. It was then recalled that the patient had an injury to a testicle in May of 1944, which was followed by a persistent induration and the testicle was removed in June of 1944, six months before this film was made. A histologic examination of the testicle was not done, but when the films were received for review, there was little hesitation in the opinion that these densities probably were metastases from a malignant tumor of the testicle. Subsequent events proved this to be correct, because when the patient died several months later, postmortem examination showed the lung lesions to be metastases of seminoma.

The second case brings out one or two differential points with regard to nodular densities.

In July, 1945, chest film was made of a young married woman and reported as showing tuberculosis, with a small oval area of exudative type over the first interspace on the right. In January 1949, this area had enlarged to a diameter of four c.m., and now appeared as a fairly round, well circumscribed density with a central radiolucent spot. Bronchopulmonary carcinoma was uppermost in the minds of the clinician, so that exploratory surgery with pneumonectomy as a probable procedure, had been advised. Further investigation was requested by a consultant and planigraphic analysis of the lesion was carried out. This located the lesion as intrapulmonary and showed that the cavity was central and that there were three calcific areas. Bronchopulmonary carcinomas may abscess and show central cavitation but they are not supposed to calcify; only one such case has been recorded and that was following radiotherapy to a basal alveolar carcinoma.

However, benign tumors, such as adenoma, may calcify but do not usually excavate. Tuberculomas may caseate in the center with cavity formation and calcify, but Golden states that they will not be observed to increase in size. This is a paradoxical statement, since obviously they do not start out full blown but must at some time have been small and enlarged. Furthermore, it has now been demonstrated that coccidioidal infection in the lung may form cavities and that these may gradually fill in and calcify. So, from the x-ray standpoint, the order of preference of interpretation with regard to this lesion, was: tuberculoma, benign lung tumor, coccidioidosis, chronic abscess, with bronchopulmonary carcinoma as the last choice.

The first step in the study of such densities is to place them in a classification according to size of lesions, because this will narrow down the possibilities in the individual case very decidedly. The roentgenographic grouping given by Golden is a good one and is being used, with some modifications. Taking his grouping and placing in their respective classes, the forty or more conditions just listed on the screen,—about one-half of which Golden does not include, the multiple nodular shadows can be divided into three main groups:—

I. Miliary or millet-size shadows (about one mm. in diameter). These will include:

Miliary tuberculosis
Boeck's sarcoid
Miliary carcinosis
Some pneumoconioses,—as asbestosis, hemosiderosis, bagassosis, fibrosis from talc or diatomaceous earth.
Passive congestion
Rheumatic fever
Beryllium poisoning
Miliary calcifications

II. Moderate size shadows (2 to 4 mm.). Golden uses the term "submiliary" for these shadows, which is a misnomer since strictly this would mean smaller than miliary, while these are larger than miliary or millet-seed. Included are:

Bronchogenic tuberculosis
Silicosis
Some metastatic carcinomas

Boeck's sarcoid (some cases)
Histoplasmosis
Infections by Fungi, such as Aspergillus, Monilia, Mucor, Blastomyces, Penicillium.
Peripheral vascular disease, such as periarteritis nodosa, lupus erythematosus.
Infections, such as brucellosis, tularemia, psittacosis, and some cases of bronchiolitis.

III. Large nodular shadows (5 mm. or over). These usually offer less difficulty in interpretation, because of the associated history or symptoms. They include:

Bronchopneumonia
Multiple abscesses
Lipid pneumonia
Polycythemia vera
Leukemia
Hodgkin's disease
Idiopathic fibrosis
Coccidioidosis
Metastatic cancer
Sarcoidosis (some cases)
Cystic lung disease.

Although we are learning something new almost daily about nodular shadows and the relative frequency is subject to revision, the ten most common conditions as we have observed them up to now, would be as follows:

1. Miliary tuberculosis
2. Bronchogenic metastatic spread of tuberculosis.
3. Silicosis, or other pneumoconioses.
4. Bronchopneumonia (including inhalation pneumonia from irritant fumes).
5. Passive congestion from mitral heart disease or rheumatic fever.
6. Coccidioidosis.
7. Metastatic cancer,—carcinoma or sarcoma.
8. Infections by fungi, such as Aspergillus, Monilia, Blastomyces, etc.
9. Sarcoidosis.
10. Bronchiolectasis (chronic bronchitis).

The other thirty odd conditions have not as yet been frequent in our observation, though we have seen occasional cases of electrowelder's disease, beryllium poisoning, brucellosis, nodular Hodgkin's disease, and others.

With this general classification, based on the size of densities, the study of the possibilities presented by the individual case is somewhat simplified, though still difficult enough. When the shadows are of miliary size, with uniform distribution over the lung fields, and particularly if there is also a lesion consistent for a primary or reinfective tuberculosis, miliary spread of that disease would be the interpretation of choice. The shadows are usually so numerous that they appear conglomerate on the flat film due to overlapping projection. Even in such an appearance, the interpretation can be in error and there always remains the necessity for correlation with the clinical evidences and history.

Boeck's sarcoidosis may occur in the form of miliary mottling, as well as large hilar infiltration, and may co-exist with tuberculosis.

Among the pneumoconioses which can appear as miliary mottling, beryllium poisoning simulates miliary tuberculosis very closely. Sarcoidosis and beryllium mottling do not have the uniform distribution shown by miliary tuberculosis, but tend to involve the bases. Hemosiderosis, however, does have a uniform distribution very similar to that of miliary tuberculosis, and miliary carcinosis may present a roentgenographic picture identical with that of miliary tuberculosis and with very similar clinical symptoms,—so that the correct diagnosis usually is not made until post mortem examination.

The fine mottling of passive congestion, and particularly that of the late stages of rheumatic fever may simulate miliary tuberculosis, but can usually be differentiated by taking into consideration the cardiac enlargement and history.

The miliary calcifications of healed disseminated tuberculosis are said to be indistinguishable from those produced by other infections, particularly histoplasmosis. However, since the calcifications maintain the general size of the nodular lesions from which they arise, and since the nodular lesions of miliary tuberculosis are smaller than those of histoplasmosis, as well as being more irregular in shape and somewhat differently distributed through the lung fields, the calcifications should follow corresponding patterns, which are suggestive to say the least.

In the group of diseases with moderate size nodular shadows will be found those which give the greatest difficulty in differential diagnosis. The lesions of metastatic bronchogenic tuberculosis,—the most recently proposed terminology for these lesions,—appear as larger nodules than those of miliary or hematogenous dissemination. Usually, in the presence of known tuberculosis, a bronchogenic spread can be postulated when the nodular areas show a distribution corresponding to a bronchial tree.

In the consideration of silicosis we are not justified in ascribing nodular lesions to this condition unless there is an adequate history of ex-

posure to silica dust, both as regards the amount of dust and sufficient length of time. Fairly definite minimum limits have been established and these criteria must have been fulfilled before we can say, with any justifiable assurance, that nodular lesions are silicotic. The usual course of the development of nodular silicosis can be illustrated by a series of films, made on the same patient, over a period of ten years. The workman was checked annually but only four films will be shown:

The first film, made in 1934,—the pre-employment film of a cowboy who applied for work as an underground miner or mucker; showed his lungs to be clear except for a few calcific nodules. Yearly films in 1935, 1936, 1937 and 1938, while he was working as an underground miner continued to show normal appearances. In 1939, after five years' exposure to silica dust in a rather dusty mine, the first visible faint mottling was made out, chiefly in the left base. This was a little more distinct in 1941, after seven years of exposure, and in 1943 a definite third stage silicosis was present. Symptoms had not developed and the workman was still doing his full day's work, without dyspnea or other disability.

This is the usual course of silicosis and we cannot make the interpretation until nodulation at least to the degree shown on the second film has developed, and then only after knowledge that there has been exposure over a sufficient time to an adequate concentration of silica dust.

The difficulty we can get into, when these known criteria are ignored, is well illustrated by a case which caused considerable trouble for an Industrial Commission.

A man applied for employment in a small mine in northern Arizona, and was sent for a pre-employment film of his chest. This film showed lung fields to be clear, and was filed away and the man was accepted for employment. After working a few months, he inhaled some irritant fumes following a blast and developed an acute pulmonary congestion. He was treated by the same doctor who took the pre-employment film, and after the acute congestion had subsided, another film of the chest was made. This showed numerous nodular densities which were not present on the first film; the doctor called these nodules silicosis and since they were not shown by the first film, the further opinion was given that they must have developed as the result of his exposure to silica dust during his few months of exposure. The only other explanation which then seemed possible was that they might be the nodular densities of bronchiolitis or bronchopneumonia from inhaling irritant fumes. However, subsequent films showed the densities to be stationary and without change from month to month. The films came for review and the radiologic suggestion was offered that the pre-employment film was not of the same chest as the subsequent films, eight definite anatomical differences being noted. Subsequent investigation unearthed three other examinations of this man at two Arizona mining hospitals, and these all showed the same nodular densities of silicosis,—one of them dating back ten years. To a devotee of Sherlock Holmes, Dr. Thorndyke, Philo Vance, Dr. Fortune or Ellery Queen, the radiologic evidence was conclusive. Evidently, finding himself rejected for employment three times, this canny Slav decided to beat that game, and sent a confederate to pose for the pre-employment film, under his name. The workman stoutly denied this, but such a protestation is quite in character, according to the authorities just mentioned. The circumstantial evidence was all against him, and he was denied compensation for this silicosis,—so far as being a result of the particular period of work in question was concerned.

Another differentiation often requested is to evaluate the nodular densities in tuberculo-silicosis, or a case suspected of being such. From the compensation standpoint, such a differentiation may be of academic interest only, since any degree of tuberculo-silicosis is compensable in Arizona. However, from the medical viewpoint, the distinction may have value. Usually, it is not possible to select certain nodules and decide that they are silicotic, and indicate others that are due to bronchogenic spread of tuberculosis. However, the sudden appearance of a group of nodular densities, in a series of films, especially if in a location usually spared by silicosis,—such as apices or laterel sulci, may suggest a bronchogenic spread of tuberculosis. If these later resolve or begin to calcify, tuberculosis is even more certainly suggested, because silicotic nodules will do neither.

Since the report by Sayre and Meriwether, in 1932, previously mentioned, many articles on fungus infections in the lungs have appeared. In 1926, several years prior to this report, we had examined a Mexican ranch worker and found the lungs thickly studded with what appeared to be silicote nodules, and a report was blithely given to that effect. The doctor who referred the patient, who liked nothing better than to "razz" the radiologist, came back with the inquiry as to how this ranch hand could develop silicosis without ever having been in a mine during his life. The question remained unanswered until Sayre and Meriwether made their

report, illustrated with chest films, several of which were quite similar to the one mentioned. About the same time we had another case with lesions located almost entirely unilaterally, and since then we have seen many fungus infections of the lungs with similar nodular lesions. In neither of these two cases did we obtain further proof than the films, but the lesions were not silicosis and were very atypical for tuberculosis; the next most likely explanation would be fungus infection. Such densities do result from infection with fungi as Aspergillus, Monilia, Mucor, Blastomyces, Penicillium, and perhaps others.

The investigations with regard to miliary or multiple calcifications in the lungs is one of the most interesting chapters in medicine. Once confidently ascribed to the healing of tuberculous foci, and still so accepted as late as 1943 by the military authorities in their induction examinations, it has now been demonstrated that pulmonary calcification is not specific for any infection, but almost any nodular lung lesion may, at some time or another, heal by calcification.

As an example, a child's lung film showed a fine, diffuse, indistinct, mottling of nodular type, with slight symptoms. After two or three years a check film showed healing by numerous round calcific nodules. Twenty years ago we would have unhesitatingly interpreted the last film as healing of miliary tuberculosis; many such are on record. Two or three years ago, we would have called these healing of histoplasmosis. Last October, Doub reported a series of five patients, a mother and four children, whom he had watched over a period of ten years with serial films, during which time nodular lesions developed, resolved. fibrosed and calcified. They were Aspergillus and Monilia infections. So, today, we hesitate to be dogmatic about any positive diagnosis, when faced with calcified lesions shown on the roentgenogram.

The investigations by research workers of the United States Bureau of Public Health and independent observers in many localities, chiefly in the Mississippi Valley, on the relationship between multiple calcification and histoplasmosis, has resulted in establishing that condition as probably the chief factor in producing the so-called miliary calcification in the lungs. The incidence is fairly high. Wyman reported 102 cases of a degree sufficient to be disqualified for military service in 110,000 examinations for the Navy. Dickie and Clark in 5000 examinations at the University of Wisconsin, found 73 cases of multiple calcification in tuberculin negative students. Long and Stearns reviewed 53,400 films made at induction stations and found 173 with sufficient calcification to be disqualified for the military service. These and many other workers, by the end of 1944, had fairly well established that the pulmonary calcifications of the "wheatena" type are usually the result of histoplasmosis.

Furcolow, Mantz and Lewis give the following classification of the histoplasmin-connected calcifications:

1. Sharply circumscribed nodular lesions, single or several in number, from ½ to 3½ mm. in diameter. Three-fourths of their cases showed only one nodule. These are not distinguishable on the x-ray film from the healed tuberculous focus in hilar nodes or the Ghon tubercle in the lung parenchyma.

2. Pneumonic infiltration with enlarged hilar nodes, which cannot be distinguished from Boeck's sarcoid on the x-ray film.

3. Widely distributed nodular calcifications in both lungs, numbering from a dozen to hundreds, or too numerous to count. These are said to be indistinguishable from miliary tuberculosis, a point on which comment has already been made.

Aronson, Saylor and Parr, in their investigations among Indian children in Arizona, chiefly the Pimas around Sacaton, found many pulmonary calcifications in tuberculin negative and coccidioidin positive children. Cox and Smith had previously shown by postmortem examinations that coccidioidal lesions may heal by calcification. Doub's observation on calcification of Aspergillus and Monilia nodules has been mentioned.

We have, therefore, at least five etiologic agents producing calcific nodules in the lungs, and more will doubtless be added as investigations proceed. Therefore, we are no longer able to say, when faced with a single calcific nodule in the hilar nodes or lung parenchyma, that this is a primary healed tuberculous focus, which we have unhesitatingly done in the past. It could be histoplasmosis, coccidioidosis, or a healed fungus infection. Nor can we say that a group of calcific shadows, seen for the first time and without prior laboratory proof of tuberculous infection, are certainly the result of such infection, even though there are characteristics on such a location and grouping of shadows

which strongly suggesst tuberculosis. In histoplasmosis there are also some characteristics of the distribution and type of the shadows which will be suggestive.

We will not devote much time to the large nodular shadows. Usually they present characteristics and are associated with a history and symptoms,—which will indicate their nature.

The large rounded nodules of metastatic sarcoma, like a basket of marbles or golf balls, are usually characteristic.

Lesions of metastatic carcinoma, such as from the breast, are less round, less dense, and more irregular in outline.

Hodgkin's disease may need to be differentiated from the so-called "potato nodules" of sarcoidosis.

Coccidioidomycosis tends to produce nodular lesions in many cases.

Cystic lung disease may show a dense nodularity in the group classified by Sante as bronchiectatic pneumatoceles, when the cysts become filled with fluid.

Almost daily new studies on nodular lung lesions and their roentgenographic characteristics appear in the medical journals. A recent article by Barden and Cooper stressed the peripheral vascular diseases of the lungs. They discuss several conditions not previously mentioned as producing nodular shadows, such as thrombosis, embolism, scleroderma, exfoliative dermatitis, glomerulonephritis, eclampsia, beri beri, sulfonamide poisoning, and the hilar congestion of azotemia.

In closing, I will say that the subject of multiple nodular shadows is an unfinished book, with many chapters yet to be written. Close cooperation between clinicians, pathologists, radiologists, and public health officials, will bring us more frequently to the right answer, than if we each try to work alone in his limited field.

CARCINOMA OF THE ISLETS OF LANGERHANS
With Metastasis to Liver and Four Year Nine Months Survival

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A SINGLE case of carcinoma of the islets of Langerhans with metastasis to the liver producing hypoglycemia is presented. It is thought that this case is of interest to be added to the collected 17 rare similar cases of Lopez-Kruger. After their review of the literature in 1946 it is felt that this case is of particular interest because of its long duration, four years, nine months, in the presence of alteration by surgery four years before death. In the series by Lopez-Kruger in 1946, but one patient survived five years after onset of symptoms and the average survival length was one year. Ranson reviewing cases of carcinoma of the pancreas in 1938 stated, "We have not been able to find a case of carcinoma of the pancreas in which the patient lived four years after operation." Seltzstein in 1946 then reported a case of adenocarcinoma of the head of the pancreas which remained local without metastasis four years after biopsy.

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CASE HISTORY

Patient W. W. H. is a white male farmer who began to have symptoms of hypoglycemia in

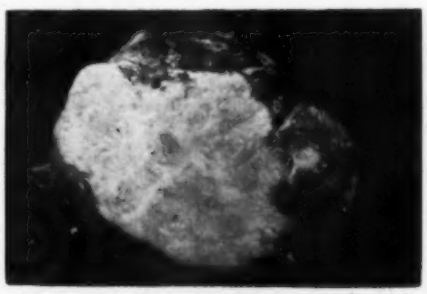

Illustration I

Surface of liver made on cutting showing large growth of metastasis from carcinoma of islet tissue of pancreas.

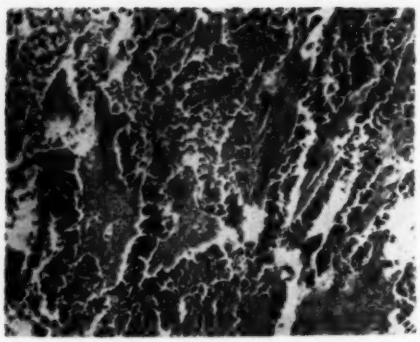

Illustration II
Microscopic appearance of metastatic tissue found in node at liver hilus—autopsy specimen.

November, 1942 at the age of 51. He first noticed dizziness when he went too long without eating and was relieved by taking food. The symptoms persisted and increased until the patient began to have spells of unconsciousness usually in the morning before breakfast. Patient was admitted to a hospital in Tucson, Arizona, where his physical and laboratory findings suggested the diagnosis of adenoma of the islet cells of the pancreas. A tumor was removed from the body of the pancreas which was diagnosed as adenocarcinoma of the pancreas.

Following his operation, the patient improved, but in about four months the symptoms gradually recurred.

He was first admitted to the Veterans Administration Hospital, Tucson, Arizona, on June 26, 1944, and at that time showed a fasting blood sugar of 30 mgm. per cent and it was necessary to feed him twice during the night to prevent attacks of dizziness and unconsciousness. On October 16, 1946, the patient was re-admitted with similar symptoms which had progressed and he was transferred to another Veterans hospital where his physical examination was essentially negative. His low blood sugar was treated by high protein, high carbohydrate diet with additional feedings.

On June 20, 1947, he was re-admitted to the Veterans Administration Hospital, Tucson, Arizona, at which time his symptoms of weakness and blacking out were so severe and frequent that he had to be fed hourly. Fasting blood sugar was found to be as low as 22 mgm. per cent. Liver function tests were relatively normal and there was no evidence of any metastasis. It was believed that the tumor of the pancreas had recurred and an exploratory laparotomy was performed on July 23, 1947, at which time a fist size tumor was removed from the head and neck of the pancreas. The patient was not relieved of his hypoglycemia and it was necessary to give him large amounts of sugar by vein. On the 25th postoperative day the patient died after running a febrile course.

The postmortem examination showed the liver to be enlarged and studded with numerous, hard, grey nodules measuring up to 12 to 15 cm. The liver also contained a number of abscess cavities up to 2 cm. in diameter. The pancreas consisted of only a small mass lying along the duodenum measuring 2.5 x 5 cm. and was of normal appearance.

SUMMARY

A case of carcinoma of the islets of Langerhans with a metastasis to the liver and the production of hypoglycemia is presented. The age of the patient at onset was 51 years and the patient lived four years and nine months after onset with the course altered by partial pancreatectomy a few months following the onset of symptoms.

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PSYCHIATRIC ASPECTS OF THE LOW BACK SYNDROME
The Narcotherapeutic Approach

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THE aching back has been with us since time immemorial, but we have changed our diagnostic and therapeutic approach to it many times. All medical and surgical specialties have made valuable contributions. The pseudo-sciences of chiropractic and osteopathy have sprung up around the cult of the painful back with its slipped vertebrae and pinched nerves.

The latest entry in this race, as in so many others, is psychiatry. The psychiatric terminology has varied a great deal. The "back misery" of the southern plantation slave, the "railroad spine" of the nineteenth century, the "compensation back" of more recent date, the "hysterical back" of the army in the first world war, the "camptocormia," and the "anxiety state

and neurasthenia with psychosomatic backache" of our own advanced terminology all are brothers under the skin.

These patients have usually run the gamut of all specialties, laboratories and therapies before the psychiatrist is consulted. Often they have not escaped surgery, or indeed, poly-surgery. Thus, the tonsils and teeth had to yield to the myth of the infected focus. The appendix, the gall bladder, and especially the innocent neighbors of the poor back, the reproductive organs, are suspected and often sacrificed. The number of hysterectomies performed in this series of cases is appalling.

The difficulties of dealing successfully with the low back complaint stem from various sources, and the psychological basis of these difficulties has not received enough attention. It is not an easy task for the surgeon or general practitioner to refer these patients to a psychiatrist, because, by the very nature of the disorder, these patients resist psychological insight.

Prolonged analytical psychotherapy is usually not feasible under these circumstances, especially since claims and disputes over insurance benefits are so frequently involved. Also, the number of patients with low back syndrome and other psychosomatic disorders, has increased so much out of proportion to the available number of psychiatrists, that "short-cuts" have become absolutely necessary, lest we fail to give attention and care to the vast majority of these patients.

For these reasons, the narcotherapeutic approach was attempted in this series of 72 patients, treated from February 1946 to March 1948. This method had been used by this writer extensively during the war in the treatment of acute and sub-acute anxiety states and hysterias in combat soldiers, so-called "combat fatigue," but only rarely in chronic neuroses and psychosomatic disorders.

Most of the patients were hospitalized for ten to thirty days and from three to fourteen narcotherapeutic sessions were held, usually lasting from 45 to 60 minutes each. From 0.2 to 0.5 grams of sodium amytal or sodium pentothal was injected intravenously, very slowly, until "twilight sleep" was obtained. Complete anesthesia, deep sleep or lack of response to verbal stimuli were avoided. No respiratory, circulatory, or other complications were encountered with this technique.

With few exceptions, suggestions, persuasion and direct encouragement were avoided. Whenever a patient seemed to lapse into a hypnotic suggestibility or a tendency to "surrender" to the examiner, the session was terminated and the patient was instructed that hypnosis was not desired and must be resisted.

It is not within the scope of this paper to evaluate and describe the predisposing neurotic or pre-neurotic personality traits which were present in these patients. Many of these exceedingly chronic, often life-long patterns came to light, but the limited time did not permit their full investigation and correction. The emphasis was placed on reliving the precipitating traumatic experiences, recognizing the symptom producing unconscious conflicts, and properly evaluating the irrational fixation of minor back symptoms. Favorable results were obtained only when the patient was able to detect the psychological mechanisms responsible for the failure to respond to medicinal or surgical therapy and the unduly prolonged convalescence.

In each instance the psychogenic nature of the disorder was elicited during the narcotherapeutic interview. The patient was unable, or in some instances perhapss unwilling, to cooperate with the examiner to the extent of recognizing the true psychopathological basis until his inhibitory and repressive inclinations were abandoned during "twilight sleep."

REPORT OF CASES

Case 1. A 48-year-old law enforcement officer was attacked and beaten while attempting to arrest two criminals. In spite of incurring only minor bruises, and in spite of entirely negative radiologic and orthopedic examinations, he continued to complain of excruciating backache, inability to walk, and total disability. A psychiatric disorder was suspected, but could not be proved until narcotherapy was instituted. During these sessions, he shifted his complaints dramatically from the somatic to the psychological side; his backache became less and less important and in its place appeared a constant preoccupation with the idea of having to return to the risky occupation which had caused his distress. It was quite obvious that his main motivation was to avoid future risks and dangers at all cost, and since no other avenue was open, he held on to his backache. One of the puzzling events in his case was a partial restoration and rehabilitation a few months after his traumatic experience, during which period he had been able to walk without crutches and was expressing a good deal of optimism and confi-

dence that he was on his way to recovery. This, however, was followed by a complete relapse with bizarre contractions of the spinal musculature, a shuffling gait on a wide base, and bitter complaints of intolerable pain. This condition lasted for approximately one year until psychiatric care was begun. During one narcotherapeutic session, he revealed that this partial improvement had taken place when he was promised ownership of a smal grocery store which could have provided for his economic needs and which would have made it possible to retire from the dreaded occupation of law enforcement without "loss of face."

Case 2. A 45-year-old widow complained of constant severe low backache with radiation into both legs and also upward to the neck and occiput. She dated the onset of her symptoms to a fall, when she slipped in the office where she had been employed for several years. Her condition had been thoroughly investigated by various specialists with negative orthopedic, gynecologic and neurologic findings. The psychiatric examination revealed a distinct depressive and anxious attitude. While the chief complaint remained backache, there were multiple symptoms such as sensitivity to cold, burning of the eyes, blurred vision, head and joint pains and digestive disturbances. The patient was unable to concede even a remote possibility that some of the symptoms might not be traumatic. She was not aware of any emotional disturbance or any symptom-producing causes other than the trivial fall. During the first narcotherapeutic interview, which took place more than two years after the onset, she released suddenly and violently a previously suppressed hostility toward her immediate superior, whom she accused of having made life miserable for her and whom she blamed for her failure to receive a deserved promotion. The patient actually expressed the fear that this person intended to kill her. However, in subsequent sessions, it became apparent that this fear was, in reality, a masked desire to reverse roles and to eliminate her superior by means fair or foul. It was learned that the patient's work performance had slipped in the period just preceding her injury. She had been brooding over the coming of age of her only son whose support, upbringing and education had been her one and only concern after losing her husband at an early age. When her son became independent of her and joined the army, she realized that her life had become empty, that age was approaching, and that all prospects for another marriage had ended. She lost interest in her work and gained the conviction that she was no longer needed and wanted. The paranoid trend directed against her superior could have ended in a catastrophic crime or psychotic crisis, had not the accident opened a new and welcome avenue of escape.

Case 3. A 42-year-old woman had been bedridden for two years because of inability to stand and walk, dizziness and low back pain. The onset had been insidious and there had been no history of trauma, infection or other illness. The patient was entirely unable to account for her chronic invalidism and had consulted various physicians and undergone a battery of tests and therapies, but all to no avail. She was carried into the office by her husband, who had waited on her hand and foot for many months. The examination revealed no organic neurological findings. There was a complete inability to stand or to walk. The musculature was well developed without evidence of atrophy or paralysis. All reflexes were normal. A diagnosis of low back syndrome and hysterical astasia-abasia was made, but the etiological factors remained obscure. The patient denied any traumatic experience, maladjustment or complexes, claiming that her life had been satisfactory and that she had no basis for concern. During the first narcotherapeutic session, she was encouraged to retrace the onset of her weakness. She suddenly recalled quite dramatically that her back began to ache and her feet began to get numb during a visit to a mental institution where her epileptic brother was confined. The patient was remorseful that she was unable to provide a home for him and was blaming herself for his commitment. Her weekly visit to the institution had been an ordeal which rendered her anxious and apprehensive, days in advance. Her symptoms increased with each visit. After two months she had become exhausted and depressed. During the second narcotherapeutic session, the patient recalled that in that same period, she had met a man with whom she had had extra-marital relations about ten years previously. She had been able to keep this affair from her husband and claimed that she had forgotten it entirely until this encounter had reminded her of the only pleasurable sexual relations that she had ever had. That day she returned home, burdened with feelings of guilt and shame, but nevertheless playing with the idea of renewing the old friendship. A few hours later she became "paralyzed." Her paralysis then made it impossible for her to endanger her moral and marital equilibrium, and at the same time, spared her from facing her epileptic brother and her responsibility toward him. This patient made a complete recovery after six narcotherapeutic sessions, and has solved all her problems intelligently.

Case 4. A 38-year-old white male of low intelligence was completely illiterate, and had led a sub-standard existence throughout life. However, during the economic boom of the war years he earned about four hundred dollars monthly and gained considerable affluence. In 1944 his back was injured by a falling log. Surgical and radiological recovery was speedy and uneventful,

but the patient failed to rehabilitate himself, and complained of unbearable backache and total disability. The examination revealed voluntary contractions of all back muscles, without true spasticity. The patient refused to move his spine in any direction. He could not actively move the left lower extremity, which was dragged along the ground like a prosthesis. The reflexes were intact, there were no pathological signs, and the musculature was well developed, but there was complete loss of all modalities of sensation from toes to thigh, ending abruptly with a circular line around the inguinal ligament and buttocks, thus producing a classical "stocking anesthesia." He had been in this miserable condition for two years, not yielding any of his hysterical symptoms to various types of therapy.

When he first presented himself, his intelligence was found to be so low that he failed to understand the nature and aim of psychotherapy. During the first session, in the hospital, the anesthetic area shrank, and during the second session it disappeared completely. By this time he had regained active use of his leg and was convinced that he had been cured, by a new "miracle drug." He still had no understanding of the real nature of his illness nor of the psychological basis of his recovery and was refused permission to leave the hospital although he demanded his discharge. In the night following this discussion, the patient left the hospital by jumping out of a second floor window. Leaving behind the crutches which he had used for two years, he made his way home, a distance of about five miles, in spite of a fracture of the left foot sustained in jumping out of the window. The patient was seen subsequently and remained unamenable to psychotherapy, except through suggestion.

COMMENT

The very high incidence of symptom-fixation upon the lower back is so astonishing that more profound factors must be suspected. Any study of post-traumatic neuroses reveals that hardly any part of the body is so apt to become the site of fixation of neurotic symptoms as is the back. A few patients are aware that the physician has difficulty determining when and how completely an injured back has recovered, and thus they see their way clear to claim continued symptoms and disability when monetary or other rewards can be obtained. This is the old conception of the "railroad spine" and "compensation neurosis."

However, we are again and again impressed by the real, deep fear and anxiety manifested by these patients. Obsessive phobias of permanent crippling, of paralysis, of tuberculosis of the spine, of incurable arthritis were frequently encountered. The command to move about actively and engage in active back bending elicited a true panic in some instances. Somatic phobias and deep superstitions were encountered much more frequently in this series than one would have expected. And, as usual in psychoneuroses, there was a general regression to a more immature attitude. The shuffling gait on a very wide base, the semi-flexed knees, the short steps, the unwillingness to maintain an erect posture in favor of a semi-erect forward stoop with the upper extremities dangling helplessly on the sides, the head, instead of looking forward, being held downward—all this recalled nothing more than anthropoid locomotion. In the more bizarre camptocormias, it seemed that the patient was attempting to revert completely to quadruped gait and that he resisted this temptation only by mustering what little human dignity he had left. Thus, one would venture the hypothesis that these neurotics abandoned to some degree one of the last phylogenetic and ontogenetic achievements of man, the erect posture and bi-ped locomotion. This reversal of the developmental scale and regression to a more immature phase satisfies the need for a more secure locomotion nearer to the ground where any fall would be less risky. At the same time, a secondary gain is obtained, inasmuch as this posture calls for maternal protection and sympathetic attention and also permits social, occupational, military and sexual inactivity.

These latter, more obvious motivations could be classified according to the situation from which relief was desired. The first group includes occupational hazards and risks. In this group was the law enforcement officer mentioned above, and also, a telephone lineman, who had sustained a very minor injury from an electric shock, and a number of veterans whose complaint dated back to dangerous combat experiences. The second group includes compensation benefits or other monetary rewards. Very frequently these patients denied any desire to obtain compensation until narcotherapy was instituted. In "twilight sleep" the following sentiments were frequently expressed: "If I could only get a little settlement" or, "You won't be sorry if you help me to get a pension." There were some malingerers in this group, but much more frequently the real motivation was economic insecurity and dependency upon assist-

ance, due to emotional insecurity and faulty personality development, lack of confidence, ambition and drive. The third group includes various personality problems, often with sexual impotence and frigidity. In these instances the symptom formation and fixation relieved the patient of dreaded and unsatisfactory intercourse. In two instances, the back complaint which had previously improved, became aggravated when the individuals were under investigation for criminal charges. One patient became disabled after losing his wife and children through divorce. Two were chronic alcoholics.

SUMMARY

The results of psychiatric therapy were greatly dependent upon the following three factors:

1. Patients who had been "neurotically stigmatized" and severely predisposed prior to the onset of backache, reacted much less favorably and relapsed much more readily than patients with minimal or minor predisposition.

2. Patients without traumatic history did very much better under psychotherapy than those with true or alleged trauma.

3. Private patients responded much more favorably than patients who received or claimed compensation. Of the 72 patients of this series, 29 were private and mainly non-traumatic and 43 were veterans, industrial, or other insurance cases, mainly with a history of trauma. Of the 29 private patients, 20, or roughly two-thirds, responded favorably to psychotherapy. Of the 43 non-private cases, only 16, or a little more than one-third, could be rehabilitated.

The criteria of rehabilitation were subjective symptomatic improvement and return to some form of gainful occupation. All patients had been incapacitated for six months to five years before psychotherapy. The period of observation, following conclusion of treatment varied from six months to two years. The patients who relapsed within less than one year following conclusion of treatment were placed in the unfavorable group. Thirty-six, or exactly one-half of the seventy-two patients were rehabilitated with the above criteria. Of patients who failed to respond to psychotherapy, a certain number returned to work after settlement of insurance claims or litigation.

An interesting observation was the frequency of multiple trauma. In these patients, accident proneness existed. They exposed themselves to traumatic risks because of their neurotic behaviour pattern, and once an injury was sustained, the convalescence was prolonged for the same psychsological reason. In several instances, the patient responded favorably, and returned to work, but became incapacitated again within a few weeks or months after another inconsequential fall or strain.

CONCLUSIONS

1. Four of a series of seventy-two cases of low back syndrome treated psychiatrically are reported. Of the series of seventy-two twenty-nine were private and mainly non-traumatic, and forty-three were non-private and mainly traumatic.

2. In all cases psychotherapy was instituted because of failure to respond to other types of treatment and because of suspected underlying personality problems. The type of psychotherapy used in this series was narcotherapy. The narcotherapeutic interviews revealed psychogenic factors which could not be ascertained prior to narcotherapy.

3. The results were much better in the private group than in the non-private group.

Arizona Medical Problems

CONSULTATION AND CASE ANALYSIS

ARIZONA MEDICINE again presents an unsolved and difficult case from the practice of Arizona physicians, with the Case-Analysis and comments of a specially-chosen and nationally-known Consultant.

Any physician who has an undiagnosed case which has defied other methods of solution may send it for consideration. The case should be completely worked up, but an editor will help compose the report. Whenever the need for an answer is urgent, the Consultant's reply will be sent direct to the submitting physician, before publication.

Please send communications and data to Dr. W. H. Oatway, Jr., 123 S. Stone Avenue, Tucson, Arizona, or care of The Editor, Arizona Medicine.

The CONSULTANT for the current case is *Dr. Curtis J. Lund*, Professor of Obstetrics and Gynecology at Louisiana State University School of Medicine, New Orleans.

Dr. Lund's department shares the huge clinical material of The Charity Hospital, one of the two largest services in the nation. He is a graduate of the University of Wisconsin Medical School, and did research and teaching on the faculties of Wisconsin and Minnesota before going to Louisiana as professor.

His particular interests have included analgesia and anesthesia in obstetrics, fetal and neonatal asphyxia, and nutrition and heart disease in pregnancy. He is a member of numerous societies, including the Southern Interurban, New Orleans, and Central obstetrical and gynecological groups.

* * *

CASE NUMBER XIII

The patient is **an obese white female aged 28 years.** She is employed as an office-worker, and her husband is in the army.

The **past medical history** includes an acute pelvic inflammatory condition eight years ago, for which a left salpingectomy was done; "gastric ulcers" four years ago, for which little was done or needed; a pneumonia three years ago; and frequent "colds," which usually developed into severe and prolonged bronchitis.

Her **chief complaints** when first seen three months ago were **urgency, frequency, burning, and painful cessation of urination,** plus a lumbar backache.

Her **illness** began two weeks previously with a "cold," accompanied by diarrhea and backache. The "cold" cleared quickly, and the diarrhea ceased after ten days, but the urinary symptoms then started and her fever rose to 103 degrees. She had a headache, but no nausea or other symptoms. Her last menstrual period had been missed two weeks before—an unusual event for her.

On **examination** she was seen to be pale and obese (she was five feet tall and weighed 136 pounds). The only signs of note were a temperature of 102 degrees, a pulse of 100, and general abdominal tenderness with percussion tenderness in the flanks (left greater than right). The vaginal examination was negative, and the external urethra was normal. **A urinalysis** showed 1 plus albumin; specific gravity of 1.003, and 50 to 60 leukocytes per high-power field. A culture was not made.

The **diagnosis** was acute pyelonephritis and cystitis, sub-acute colitis, obesity, and secondary anemia. Treatment consisted of fluids, a bland diet, an antispmodic drug, and one-half gram of sulfadiazine every four hours, plus an alkali.

The immediate progress was good. The temperature became normal in 24 hours and stayed that way. The urine cleared of "sediment," and the urethral symptoms lessened, but there was still a frequency and lumbar ache. The sulfadiazine was continued for seven days.

A week later her symptoms persisted the same, though she was afebrile and working. Another voided urine specimen showed no albumin, 25 to 30 cells per HPF, with marked clumping. Similar findings (35-40 cells) were present again a few days later, and she was given a week's trial of sulfathiazole. Again a culture was omitted, since she was unable to arrange time for a catheterization.

Ten days later she reported that she had missed a second menstrual period, and that the mild urinary symptoms were still present. The general examination was negative, the blood pressure was 120/88, and fluoroscopy of the chest was normal. A catheterized specimen was taken in the laboratory, and it showed 2 plus albumin and 50-60 WBC per HPF. A **urine culture** was **negative** at 2 and 5 days. A blood count showed 9.8 grams of hemoglobin, 3,180,000 RBC, 7,250 WBC, with 52% PMN, 42% lymphocytes, 5% monocytes, and 1% eosinophiles. She was again started on sulfathiazole for a week, and ferrous iron tablets. **The diagnosis** was changed to chronic pyelonephritis, and secondary anemia and pregnancy.

Two months passed, and the patient again came in with **an acute flare-up.** She had been too busy

to report until a fever of 102 degrees and back pain recurred. She had started sulfadiazine, and the fever vanished in 24 hours. A urinalysis on the fourth day showed a trace of albumin and 45 to 50 WBC's per HPF. The cells decreased to 10-12 per HPF after another week of therapy, but a week later she again had **an acute attack,** with urinary-tract and back symptoms, and nausea and vomiting. A hypodermic of morphine was necessary, and the symptoms again subsided after rest, fluids, and sulfonamides. The red blood count improved regularly so that by now there were 12 grams of Hb. and 4,460,000 RBC.

An intravenous pyelogram was then done, and in spite of poor visualization it could be seen that the kidneys were normal in contour, the right was slightly ptotic, the calyces filled partially, the left ureter was found to be normal, the amount of dye in the bladder was normal, and the bladder was normal in shape and contour.

The patient has been unwilling to have cystoscopy and a retrograde pyelogram. No other cultures have been made.

M. D., Tucson.

* * *

QUESTIONS AND ANSWERS:—

1. *What is the probable cause of the recurrent pyelitis?*

Although this patient has shown temporary symptomatic improvement, it is probably incorrect to call this recurrent pyelitis; rather it should be considered a *continuing* pyelitis. This disease is often characterized by remissions and relapses, and remissions frequently occur without evidence of bacteriologic cure.

2. *Is there an organism present which is responsive to the sulfonamides?*

There seems to be little doubt that the causative organism is now resistant to sulfadiazine and sulfathiazole. Whether or not it was sensitive originally is open to question. The dosage used (0.5 gm. every 4 hours) was small and there was no large initial dose. Inadequate dosage would favor the development of an organism resistant to the drug.

3. *Will this condition be affected by the pregnancy?*

Pregnancy more or less routinely produces a physiological dilatation of the ureter and kidney pelvis. This disturbance is usually manifest by the fourth month of gestation. The result of these normal processes is urinary stasis, and the stage is set for the entrance of pathogenic bacteria. Here we have a patient with infection prior to the appearance of stasis of pregnancy, so there can be little doubt that pregnancy will aggravate the pyelitis.

4. *Is the infection a reason for termination of the pregnancy?*

Most certainly *not* until adequate diagnostic and therapeutic procedures have been done. Modern therapy has almost eliminated interruption of pregnancy for pyelitis. Interruption of pregnancy should be considered when the disease persists in an acute fulminating form in spite of wholly adequate therapy or when there is clear cut evidence of diminished kidney function.

5. *What should be done to complete the diagnosis?*

First and foremost the patient should have repeated examinations of catheterized urine specimens for microscopic and bacteriologic study. The urine sediment should be stained and examined for the organisms, and appropriate cultures should always be made. In most instances the offending organism or organisms *will be found.* If this fails to produce a diagnosis, then a cystoscopic examination with ureteral catheterization should be carried out. Each kidney should be checked for function, the routine microscopic and bacteriologic examinations should be repeated, and retrograde pyelography should be done. If there is a persistent pyuria with negative urine culture, tuberculosis must be considered and excluded by appropriate culture and/or guinea-pig inoculation. If all bacteriologic studies are persistently negative, a diagnosis of *amicrobic pyuria* should be considered.

6. *Would you list the common infecting agents of the urinary tract and tell what drugs are now considered to be most effective for each?*

The organisms commonly found in pyelitis of pregnancy are the organisms common to the colon. By what route these organisms reach the kidney is still debatable. General opinion probably favors the theory that the organisms pass from the right colon to the right kidney by direct lymphatic spread, but some also believe in

retrograde extension from the bladder to the kidney via the ureter. Regardless of theories we are faced with the fact that the offending organism is *usually Escherichia coli*. Together with *Aerobacter aerogenes* these organisms are responsible for about 90 per cent of the pyelitis of pregnancy. The common infecting agents may be tabulated as follows:

Escherichia coli
Aerobacter aerogenes
Pseudomonas aeruginosa
Proteus vulgaris
Streptococcus fecalis
Streptococcus hemolyticus

Therapy in general depends upon the type of organism and the severity of the disease. *If symptoms are minimal* in the presence of pyuria and bacilluria, *ambulatory treatment* may be tried. The sulfonamides are the drugs of choice, and several combinations may be tried. If the organism is the customary colon bacillus, then sulfacetamide (2.0 gm.) and sulfathaladine (2.0 gm.) are given initially with a subsequent schedule of sulfacetamide (1.0 gm.) and sulfathaladine (2.0 gm.) four times daily. (The sulfathaladine will diminish the bacterial count of the colon.) Therapy is continued until the urine is free from pus cells and the culture is negative. If there is no response, treatment need not exceed a week in duration. Don't forget to check the urine for erythrocytes and/or sulfonamide crystals. It is probably wise to keep the urine alkaline with sodium bicarbonate. *Note*—do not give sodium in any form to patients with toxemia of pregnancy. Sufficient fluids should be taken to insure a minimal daily urinary excretion of 1500 cc.

If symptoms develop or if there is a *persistent infection* in spite of ambulatory therapy, the patient should be *hospitalized* for study and therapy.

Recent clinical experience has demonstrated that *combinations* of chemotherapeutic agents may act cooperatively, so that the total effect is greater than the sum of the effect of the individual drugs. Although *penicillin* is not considered as an ideal drug for infections due to gram negative bacillus, a combination of 50,000 to 100,000 units of aqueous crystalline penicillin every three hours and the sulfonamides as mentioned has produced clinical as well as bacteriological cure in most of our patients. If symptoms and/or pyuria and bacilluria persist after five to seven days of therapy, *streptomycin* (0.5 gm. every 8 hours) should be used. In fact some clinicians favor the use of streptomycin initially. However, the cost of the drug, its occasional toxicity and the rapid development of drug resistance by the organism lead us to use streptomycin in those patients uncured by sulfonamides and penicillin. The combination of streptomycin and sulfonamides as described above also apparently acts synergistically. In one patient with an unusually stubborn infection due to Aerobacter aerogenes neither sulfonamides and penicillin nor sulfonamides and streptomycin were effective, but the combination of all three produced a remission within forty-eight hours.

If this type of therapy fails, cystoscopic examination and placement of indwelling ureteral catheters are indicated. It is interesting to note how infrequently we now resort to such therapy, whereas it was so very common ten years ago.

The value of *supportive therapy* must not be overlooked. These patients vomit, they have fever and they become dehydrated. Adequate amounts of parenteral fluid must be given to secure a minimal urinary output of 1500 to 2000 cc. daily. *Anemia* is very common and must be recognized and treated by appropriate measures.

7. *Does the mandelic acid routine have any place in the modern plan?*

No. I do not like to restrict fluids and administer acids during pregnancy. Furthermore, the excellent results with the methods outlined, not to mention the future prospects of greater success with such drugs as aureomycin and chloromycetin make the mandelic acid routine obsolete.

8. *When does one alkalinize and acidify?*

We no longer acidify but as was mentioned previously, the urine must be made alkaline during therapy with streptomycin as well as sulfonamides.

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Editorials

A Bank with a High Interest

The *Red Cross blood-bank program* will eventually be crystal-clear to everyone, but at present there is room for a better understanding. It promises to be a very valuable service, and will undoubtedly expand, so ARIZONA MEDICINE presents this thumbnail sketch for its readers.

First, it is *not* a federal agency and is *not* socialized medicine. *It is a volunteer program throughout*, supported entirely by Red Cross funds, help, and donated blood.

The service is called "The American Red Cross National Blood Program." In 1947 only 20 per cent of the hospitals in the United States had any sort of a blood-bank. Hospitals and physicians urged the Red Cross to study the situation, and this was done by means of a committee of nationally known physicians. It was decided that a national peacetime program was needed; a general plan was devised; and the first "area" service was started in Rochester, N. Y., in January 1948, under auspices of the American Medical, American Hospital, and American Public Health Associations, the U.S.P.H.S., the Veteran's Administration, and the U. S. Armed Forces.

By November 1948 sixteen regional programs had been launched (including the Tucson-Southern Arizona Blood Program), and seven more were in preparation. A total of 300 local Red Cross chapters were participating, with the mobile units serving 380 communities and 470 hospitals, in areas which included 17,500,000 people. In February 1949 Dr. Louis K. Diamond of Boston, famed hematologist, agreed to act as director.

The objectives are stated to be "the provision of blood and its products to all physicians and patients who need it; to eliminate the donor cost; to provide the facilities for obtaining and distributing the blood; and to be ready for illness, accidents, disaster, and war."

There is *no charge* to the patient, doctor, or hospital for the blood. All costs of collection, processing, and distribution are paid by the Red Cross. The only possible costs to the patient (or hospital) are a charge for cross-matching and a fee for giving the transfusion.

The *Southern Arizona Blood Program* is typical of the various "area" setups. It is controlled by a committee of five physicians from the Pima County Medical Society, with Dr. George Hartman as Technical Director. The central office in Tucson serves 22 communities and 30 hospitals. It distributes all of the blood used in Tucson; in the area from Ajo east to Benson and Morenci; and from Globe and Miami south to Nogales. No hospital "bank" is now necessary. The "center" in Tucson takes care of typing and serological tests, and is open three days a week for donations. Collections of blood are made from districts twice a week by mobile unit. District hospitals are given fresh supplies every two weeks, and Tucson hospitals daily, by the Red Cross Motor Corps. Special supplies are distributed in emergency by the Civilian Air Patrol planes. At present about 640 pints a month are handled. It is expected that the service will soon also be able to supply serum albumin and gamma globulin. The newspapers, the Davis-Monthan Air Base, and other volunteer groups and service clubs have been helpful in expediting the program.

The rationale of blood usage is according to the general description of Dr. Charles A. Janeway of Boston in a report entitled "Clinical Use of Blood Derivatives" in the J.A.M.A., Nov. 20, 1948. The Red Cross describes its program in a bulletin called "Blood's Magic for All."

There is no doubt that this fast-moving, cooperative, humanitarian, convenient arrangement is a "good deal" for the patient, the hospital, and the physician—to say nothing of the civilized, altruistic feeling which it provides the donor.

W. H. O., Jr.

Arizona and Tuberculosis

The contents of this column will be pure evangelism, including a text, a listing of sins, a glimpse of hell-fire and damnation, and the prospect of salvation and paradise. It is serious stuff, and no disrespect is meant.

The topic comes forcibly to mind because of the recent question of providing the state health department with more funds for control of tuberculosis, and because of the attacks on such a plan. Neither of these manoevers is a fraction as important as the situation itself. It is time for an analysis and summation.

There are several public health aspects of tuberculosis and, sad to say, very little has been done about any of them. This is especially unfortunate in a state which has a head start in the way of reputation and climate; where a Spanish-American group and the "immigrant" population combine to provide a death-rate far higher than any other state; and where thousands of unrecognized cases hide away untreated.

The approaches to tuberculosis control must include a knowledge of all cases in the state, protection of the people who must be in contact with infectious cases, suitable facilities for rest-care, and active treatment for those who need it.

It is doubly unfortunate when people who know better (because they have been told) state that the disease is conquered, that Arizona has had experience with the disease and has handled it well enough in the past. If the objective of such non sequiturs is to save money, it should be so stated, but the facts should not be fogged. It does no favor to the tuberculous, nor the potentially tuberculous, nor the physicians, nor the businessmen, to ignore the disease; it is no service to Arizona to call the problem solved, or to wait until it is solved, or to condone laissez faire measures. Arizona's value and appeal are great to other resort and health-seeking groups, and would surely be heightened by a controlled tuberculosis.

The statistics for the United States and for Arizona spell out the need for a renewed and powerful effort to suppress the disease. The morbidity and mortality statistics leave no room for complacency. At least 1% of 140,000,000 people have lesions which might be seen by x-ray; tuberculosis hospitals have room for about 100,000 patients; several times that many should be cared for in isolation; and *47,000 individuals are known to have died from the disease a year ago.*

Poliomyelitis causes great apprehension, and huge sums are raised for its control, yet tuberculosis causes almost twice as many *deaths* as there are reported *cases* of polio. In addition, the continued illness and infectious hazard of the tuberculous outweigh the occasional paralysis of the polio.

We have the *tools of case-finding* at hand. X-raying of special groups, of hospital registrants, and of whole communities is logical and has been started. A pioneer program for examination of food-handlers has been installed in Arizona, and in the past year or so efforts have been made to survey whole cities, yet the total has not exceeded 25% of the population—a figure which approximates that for other surveys in the U. S., including the very fine examination by the armed services. Hospitals are rapidly installing photoroentgen equipment, yet there were less than 250 general hospitals (8%) in the entire country with such a program in September 1948, and only one in Arizona.

Protective methods are used on a very limited scale. BCG vaccination is now approved for use among individuals whose exposure is probable, yet it has not yet been widely applied. The technic of infectious disease precautions is now well standardized and efficient, but it is used modestly in some sanatoria, and almost never in home care. Almost every physician has seen tuberculous patients lying helpless on sputum-stained beds, with adults and children in constant contact. Arizona sunshine is a most valuable antiseptic, yet it must be supplemented by other methods for intimate care. The alternative is new infections.

Collapse therapy and other surgical methods are reaching a high degree of effectiveness. Complication and mortality rates following surgery are miraculously low; Arizona now has several top-rank surgeons with ultra-modern training; but surgery is applicable to only a small per cent of those with the disease. *Antibiotics* are

a huge aid to surgery, and *streptomycin* is something for which we once had only a faint hope—yet the field of use is limited, and at present a failure of the drug may produce its own added hazard.

Arizona's physicians have always been skilled in treatment and widely known, but there are few who do not regret the restricted number of beds which are available, the passing of the private sanatoria, and the rising cost of hospital care. Some of the older physicians owned rest-homes which they have long since been forced to close. Arizona can only list one state sanatorium, one county hospital section, a few semi-private sanatoria, a few dozen rooms available in general hospitals, a couple of federal hospitals, and a diminishing few rest-homes—and most of these are restricted in some way. Patients from Arizona, or from other states, can rarely afford the cost of adequate sanatorium care, and are forced into living with their families—though some of them do it by choice. A few of the private rest-homes even now are unsanitary, uncomfortable shacks which are unsuitable for rest care. The ancient Spartans and a few modern "old-timers" may feel that survival of the fittest is good therapy, but it can not be medically recommended.

Volunteer groups have existed for years, but they have only recently begun to actively use their funds. The problem has been so huge, and the funds so meagre, that it has been similar to fighting a fire with a glass of water. Many of their members have made valiant efforts to meet the task. The national parent society has long been remiss in not giving aid and enlarging the scope of local efforts.

The size of the task has also been the chief obstacle to the undermanned *health departments*. They have long been stymied by an uninterruptable cycle,—scanty registration of patients; partial methods of case-finding; few places to care for patients if recognized; no funds to expand services or facilities; and no way to enforce existing rules. *It would seem as though the recent legislation might provide muscles for the health department and its program, and allow an attack on each of the obstacles.*

In discussing "control" of tuberculosis, one collides with the names "socialization" and "regimentation." It has been agreed for years that tuberculosis is a social as well as a personal hazard, and thus is also a public responsibility. In areas of high incidence, the chores and costs must be planned and shared by the local, state, and federal services. There has been no invasion of rights in places where such cooperation has been necessary. There has also been no "discipline" problem in such states as California and Wisconsin, where health board rules have insisted on proper care of the patient.

How much should be done to "control' 'tuberculosis? The answer is "Enough." There is no use pretending that enough is being done, or even under way. It is not ingratitude to legislators to say that several hundred more beds could well be used. It *can* be said that, with the tools and technic which are now available for diagnosis, prevention, and treatment, and with the combined force of physicians, volunteer groups, and state, local and federal health services, that the problem *can* be licked The action must be positive and constant, however, since E. L. Trudeau said the same thing in 1905.

W. H. O., Jr.

REPORT OF OUR EXECUTIVE SECRETARY

While attending various sessions and lectures at the A.M.A. Annual Convention held at Atlantic City, New Jersey, June 6-10, 1949.

Seriousness—if one word could express the world's greatest Medical Meeting, would be my choice.

Those in attendance at the American Medical Association in Atlantic City seemed to have had two main ideas—one, to obtain the most modern proven information of methods, drugs and equipment for the best care possible for their patients; the other was the fact that American Medicine faces a serious political movement and that they as individuals were willing to do whatever was necessary to prevent the closing of the shackles of socialism on their profession and the American people.

While attending the various sessions I listened to a number of addresses by Whitaker & Baxter about the progress to date of the Educational Campaign and the plans for the future. At times in the past, like others I have been inclined to criticize the efforts of Whitaker & Baxter. Now I have an idea of the magnitude of their assignment—I realize what has been accomplished in a period of four months, and will say that great strides have been made. One phase of their work alone has produced and

distributed 25,000,000 pieces of literature to the state and county societies and individual physicians. The strong point in favor of the campaign of the Medical Profession is that it is strictly above board and is one of education taken directly to the average citizen who would be most effected by politically controlled medicine and compulsory health tax.

As expressed by a capable speaker from Cincinnati, Ohio who said in substance—a responsibility of great magnitude rests with the Medical Profession of America, and if the job could be done better by payment of $25.00 assessment, it is indeed a small contribution to make for the protection of the American people. In private conversations various references were made to the fact that Arizona heads the list of the states in percentage of payment of the assessment. Arizona may well be proud of her position.

By the indications apparent in Atlantic City the members of the Medical Profession accept the fact that they are "mixed up in politics," but have determination and confidence that 150,000 sincere members of the profession can and will carry a double load as long as necessary. The double load being that of giving their fellow man the best of medical care and at the same time implement the movement of informing the public of the true issues at stake. When informed, a wise decision may be depended upon from the American Public.

We do not want socialism, as one speaker said, "Socialism will work only in Heaven where they don't want it, or in Hell where they already have it."

The Maricopa County Hospital

The residents of Phoenix as well as those in other parts of the State have been hearing the case of the new Maricopa County Hospital being tried in the Daily Press. A well-known fact has been demonstrated again that doctors, nurses, and hospitals can always make front page news. About six years ago a very comprehensive plan was worked out by the Maricopa County Medical Society to furnish medical attention to county patients and St. Monica's hospital cooperated in setting aside space in the hospital. The hospital and the physicians of Phoenix seemed to have been well satisfied with the plan. About three years ago the Maricopa Board of Supervisors decided that the County was paying the hospital too much.

At that time the hospital submitted a plan to take the county patients on a per diem rate of eleven dollars. The Supervisors were warned of the expense of running a hospital. They were also advised that they could build a County Hospital and operate it much more economically than at the above rate. Being human they selected the advice they wished to believe.

The hospital was built. Within the past year much publicity in the daily press was given to the completion of the new building along with the excellent and up-to-date equipment that was being installed. The hospital was placed in operation, and soon the Board of County Supervisors began to realize the cost of operation. The per diem cost in the three private hospitals in Phoenix today range between $15 and $16. No figures on the County Hospital have been made public. However, the Board selected one of the leading surgeons of Phoenix, Dr. Norman D. Hall, as director and asked for an economy program.

Much generalization exists in the complaints that have been listed, but the following specific ones have been mentioned:

1. Lack of medicines, and milk of magnesia was given as an example.
2. Nurses compelled to work 48 hours a week, instead of 44 hours as they do in some private hospitals.
3. Lack of sufficient linen for a daily change. And numerous others on about the same caliber. The irony of the lack of linen is that no doubt many of these patients have *no* linen in their own homes.

It is very likely that if a survey were conducted, Maricopa County hospital would compare favorably with the average county hospital in the nation.

The writer remembers when the two private hospitals in Phoenix cared for the County patients of Maricopa at the rate of two dollars a day and accepted script in payment, as the County Treasurer was without funds to pay its bills.

At any rate the Medical Profession has a shining example of "political medicine" to point to in its battle to prevent the nation from being plunged into a scheme where the government would come between every doctor and every patient in the land.

Council Meeting

The first meeting of the newly elected State Council was held at Hotel Westward Ho in Phoenix on Sunday, June 26. Dr. Hugh Thompson of Tucson was chosen as chairman for the ensuing year. All appointments were made to the seven standing committees, and the Professional and Health Activities Board to fill vacancies created by expiration of terms.

The following list of decisions were arrived at by the Council:

1. The selection of an Executive Committee of five members from the council for matters of business between sessions of the Council. The power and duties of this committee to be decided upon.

2. The authorizations of the publication of the newly revised Constitution and By-laws.

3. The acceptance of $25 as dues for members who have paid their dues in other states and in transfering to Arizona and wish to become members of the State Association before the beginning of the next calendar year.

4. Three regular members are retiring from active practice and wish to become affiliate members: Kramer Gilbert of Chandler, Mayer Hyman of Tucson and R. R. Knotts of Yuma. Their wishes were granted.

5. Appointment of a Committee from the Council to hold meetings with various labor groups and explain the A.M.A. Educational Campaign program.

6. Full approval of the A.M.A. Educational Campaign as being conducted by Whitaker and Baxter.

7. The time for the 1950 Annual Meeting was set for April 30, May 1, 2, and 3, the meeting to be held at the Hotel Westward Ho, Phoenix Due to alterations in progress at the Hotel there will be a large room available for the scientific exhibits which will be a part of the annual meeting again.

8. The Committee on Scientific Assembly was authorized to select three nationally known speakers for this program and to fill in the remainder with men from the State Society. One full day will be devoted to Sectional Meetings.

9. Further consideration is to be given to the plan of dividing the Annual Meeting into the Scientific Session to be held in the Spring, and the House of Delegates to convene in the fall, or vice versa.

In addition to the business which was transacted, reports on the A.M.A. Convention held in Atlantic City were given by Drs. Flinn and Hamer and Mr. Peachey.

The American College of Chest Physicians held its Fifteenth Annual Meeting in Atlantic City, New Jersey, June 2-5, 1949. Dr. Michael Yankowicz of Prescott, received his Fellowship Certificate at the Convocation held at the Ambassador Hotel, Atlantic City, on June 4.

Dr. Howell Randolph, Phoenix, is the Governor of the College for the State of Arizona.

Murray Kornfeld,
Executive Secretary.

TOPICS OF CURRENT MEDICAL INTEREST

RX, DX, AND DRS.

By Guillermo Osler, M. D.

The HENCH STORY, or COMPOUND E FOR ARTHRITIS, has developed so rapidly that it now requires another paragraph. . . . A month ago we reported that Dr. Hench was barely able to get his theory summarized and into print before reporting therapy of the first few cases. . . . Then came an amazing exhibit of perfect organization, based on his belief that the profession and public must know, but must also be warned. Reports of therapy were quickly gotten into the J.A.M.A. and a trade journal; magazines and newspapers were notified; and the manufacturing company (Merck) simultaneously published a letter which insisted that a delay in supply was inevitable. . . . Next, five colleagues of Dr. Hench (including Drs. Holbrook of Tucson and Boland of Los Angeles) were given small amounts of Compound E for trial, and by now they have treated from three to six cases apiece, with similar miraculous results. . . Dr. Hench has told the current International Congress on Rheumatic Diseases that it is temporarily helpful for gout, and there is a rumor that rheumatic fever has responded. . . . By the time this note is published

in July, further developments may outdate such early results. . . . ARIZONA MEDICINE feels fairly close to the story, since Drs. Hench and Boland have each presented case-analyses of "Arizona Medical Problems" during the past two years, and Dr. Holbrook is a home boy who was president of the Arizona Medical Association in 1941. . . . A fairly good bet for a Nobel Prize at some future date would be Hench and Kendall, the Mayo chemist who produced the hormone.

If it is of any interest to anyone, our research colleagues have recently found that a very rapid regrowth of hair may be produced on guinea pigs which have alopecia, or which have been shaved, by GONADECTOMY.

PYRIDOXINE HYDROCHLORIDE (vitamin B6), which proved to be less than remarkable in hematopoiesis, has now been reported to prevent or control various types of NAUSEA. . . . Several series of cases show that it prevents most of the symptoms from radiation when given either orally or IV, using 100 to 200 mg. in one or more doses. It has also been said to decrease the nausea of pregnancy. . . . Bergman found that when pyridoxine was given before and after surgery for which ether anaesthesia was used (plus nembutal, morphine, and atropine), no nausea whatever occurred. The series was small but a further trial is certainly worth while. . . The mode of action is not certain, but the drug is non-toxic. It seems to be concerned otherwise with the metabolism of amino-acids and unsaturated fatty acids.

PARA-AMINOSALYCILIC ACID (PAS) is most effective against tuberculosis in guinea pigs when given parenterally. The local reaction of the drug is too severe, however, to allow its use by that portal. Perhaps a modification may be found which will decrease its irritability, and make it available for use with streptomycin. The combination should be potent.

SPLENIC FUNCTION is a dormant subject which could profitably be awakened. . . . The organ is dispensable, and its mode of action is not certain, but Wiseman and Doan of Ohio have neatly added together a few points. . . The spleen acts against erythrocytes, and produces hemolytic icterus; it acts against platelets, and produces thrombocytopenic purpura; it acts against neutrophiles, and produces primary splenic neutropenia; and it may overlap in its action against two or three of these cell types. . . . An indirect proof of its effect is the value of splenectomy for all of these syndromes.

Are you prepared to find and treat NEPHROLITHIASIS? Did you know that kidney stones occur more often in residents of Arizona and New Mexico than in other states? . . . Dr. J. R. Oliver (a New York pathologist) said you should, and they do, in a recent meeting of Urologists in Los Angeles.

Pure PEPTIC ULCER rarely exists in the absence of gastric acidity. . . . It is possible to produce achlorhydria, or hypochlorhydria, by roentgen irradiation. . . . W. E. Ricketts and colleagues of Chicago have obtained complete healing, irrespective of the patient's age or the duraton of the lesion, in 134 of 139 cases of peptic ulcer in which achlorhydria was produced by GASTRIC IRRADIATION, and in all of which the lack of acid persisted for more than 90 days. . . . Side-effects and brevity of effect are the main disadvantages, but the implications seem important.

Has anyone ever written about the status of TETANUS IN ARIZONA? If not, this is a scoop, and the news should be as welcome to physicians as data on the climate, or discovery of a new drug. . . . About four years ago the subject of tetanus was discussed with the late Dr. Victor Gore of Tucson. . . . He believed that tetanus is rare in southern Arizona, and recalled that the late Dr. Max Pinner (noted bacteriologist who was on the staff of the Desert Sanatorium a dozen years ago) had said that the presence of tetanus organisms in the local soil was uncommon, due to climatic conditions. . . . Apparently the sun, and lack of moisture in the surface soil, will not allow a reservoir for spores to develop —in spite of the presence of many horses in this area. . . . Finally we have been able to check with the State Department of Health. Dr. Ward reports that ONLY ONE CASE OF TETANUS, AND NO DEATHS FROM THE DISEASE have been reported in Arizona since 1940! . . . This could be due in part to precautions, though only a small portion of the population is immunized, even in "well baby" clinics. It does not mean that one can omit the use of anti-toxin after accidents, but one can feel more secure about the chances of infection.

CHLOROMYCETIN is the first antibiotic to be synthesized on a commercially practical basis. Dr. Mildred C. Rebstock of Detroit is given chief credit for the job. . . . It is not only a matter of pride to hen-medics, but suggests hope for a simple synthesis of other antibiotics, and modification into similar, more effective, less toxic compounds.

A survey of the effects of EARLY RISING AFTER SURGERY has been long overdue, and Blodgett of Boston's P. B. Brigham Hospital has now defined the situation very well. . . . The incidence of phlebitis and atelectasis is NOT reduced; there is NO ill effect on wound healing, infection, or disruption; but it DOES prevent weakness, decreases wound pain, accelerates con-

valescence, and reduces the amount of nursing care.

To physicians who give PITRESSIN for post-operative distention, or to clear the bowel of gas for cholecystography, comes a disturbing report. . . . Mills, Burchell, Parker, and Kirklin report the occurrence of SEVERE MYOCARDIAL ISCHEMIA in four patients (with the death of three) when pitressin was given routinely in preparation for GB x-rays. . . . The implication is that it was due to the drug, since pitressin is known to be a powerful vaso-constrictor, especially of the coronary arteries. . . . Electro-cardiograms of 100 patients receiving the drug did not show a notable change, but the effects could be different if the coronary condition were suitable. Attention to the patient's CV history would seem indicated.

The cause of acute disseminated LUPUS ERYTHEMATOSIS is a tragic mystery, since it usually is a fatal condition. It is currently classed as one of the collagen diseases. . . . Hargraves & Co., of the Mayo Clinic, have found evidence which may point towards an etiology. They discovered a so-called "L. E. cell" which seems to occur specifically in the disease, is usually found in the bone marrow but occasionally in the blood, and can be demonstrated only in preparations which include anticoagulants (not direct smears). The cells may also be produced by adding plasma from affected patients to cells from normal persons. This lends weight to the hypersensitivity theory of causation.

The term "GANTRISAN" has appeared in the very recent literature. . . . It is a new sulfonamide, once called "NU445" (from Northwestern University, and reported by Rhoads, et al.), and is similar to sulfadiazine in dosage, general effect, toxicity, etc. . . . The advantages are a lack of renal blockage or irritation, the absence of a need to alkalinize, and a greater effectiveness against gram negative organisms. . . . Spinal fluid levels of the drug are about a third to a half of the serum levels, and the drug may be especially helpful in meningococcus meningitis.

It is interesting to note that the first five papers which were read at the New Orleans meeting of the American Association for Thoracic Surgery were on SURGERY OF THE HEART. Not only that, they were chiefly concerned with methods for operation on valves. . . . There is no doubt that this presages another step in cardio-vascular surgery, and a new era similar to the vascular "shunt" operations—which we also thought were impossible a few years ago.

Few of the simple ills are as newsworthy as HICCUPS, few are more exhausting, and few are more difficult to treat. . . . Bellet and Nadler of Philadelphia have reported a notable effect, in a small series, from QUINIDINE. . . . They suggest an initial intramuscular dose of 10 gr., to be repeated hourly for 3 or 4 doses; if the hiccups stop, shift to 5 gr. by mouth every 2 or 3 hours; if they recur, return to the IM route. Worth trying when all the neighbor's remedies fail.

The use of foreign materials for prosthesis of various sorts has advanced far beyond the "rubber" era. . . . Vitallium and tantalum metals, certain inert materials, and various plastics have been tried in the form of tubes, nails, foils, buttons, and ligatures. . . . Two of the plastics are now found to have a fabulous list of good qualities,—TUBES MADE FROM POLYTHENE (derived from paraffin wax,) AND POLYVINYL are inert and non-irritating, flexible, cuttable, semi-transparent, radiolucent, and they do not "lime" in the presence of urine, gather pus or mucus, gather bile-salts, nor allow notable clotting of blood or lymph. . . . The maximal duration of use is not yet certain, but they have been used for many weeks as drainage tubes. Polythene has been used for more than a year in the bile-ducts of animals, and is being tried in man. (Vitallium clogs, but the plastic is unwettable by bile and has remained clear).

About a year ago a substance called "KHELLIN" was said to be helpful in therapy of coronary disease. It is an extract of the seeds of an Arabian plant. . . . Now a small series of asthmatics has been relieved by it, according to Ralph Major of Kansas City, Kansas. . . . It is taken orally, has no effect on the blood pressure, acts more slowly than adrenalin or aminophylline, but was found effective when they and the anti-histaminics were not. . . . A larger trial is certainly needed, as well as physiological data.

The use of a drug's "opposite number," or ANTAGONIST, to treat a bodily condition which is the converse of the condition affected by the original drug, is a clever therapy. . . . Folic acid has been used to treat certain anemias and leukopenias. Its antagonists include aminopterin, as well as a-methopterin, a-ninopterin, etc. They are now being used to treat acute and subacute leukemias. . . . The trial is only partly successful but it suggests a therapeutic lead. . . . There is no chemical connection between this group of drugs and urethane or nitrogin mustard—substances which have been tried in other leukemias.

Urethane (ethyl carbamate) is said to remarkably reduce the symptoms and signs of multiple myloma. The series in which it was used (by Loge and Rundles of Duke) was small, but it presents a hope, in view of the apparent failure of stilbamine.

FLORICULTURE FOR DOCTOR AND PATIENT

PHILIP G. CORLISS, M. D.
Somerton, Arizona

The number of physicians who achieved fame in the field of floriculture is impressive. This should not occasion too much surprise, however, when one considers that in the past, most drugs were of vegetable origin, and medical students were required to be familiar with the plant sources of their drugs. Both floriculture and the practice of medicine are concerned with growth and disease, life and death. The type of man who would be interested in these problems as they apply to the human race, would naturally be fascinated by the same problems in the plant world.

The first botanist-physician I would like to mention was an Englishman named Thomas Johnson, who added to his achievements in these two fields his prowess as a soldier in the defense of the King against the Parliamentarians. Johnson was born around the year 1600 and died of wounds received in the defense of Basing House when he was probably not much more than forty years of age. His achievements in the medical world included an English translation of Ambrose Pare, and in the floricultural world he published an epochal translation of Gerrard's "Herbals," with many additions of his own. The first descriptions of the Flora of England were his published reports of his many excursions through the English countryside.

Present day botanists use the artificial system of plant classification devised by Carl Linnaeus, also known as Carl von Linne. Born in Sweden, Linnaeus intended to take the holy orders, but was persuaded by another botanist-physician to study physiology and natural history under him. Thereafter, his life was divided between botany and medicine, and it is said that he practiced medicine only when he needed money to pursue his botanical interests. His appointment to the chair of Medicine at Upsala in 1741 was followed by his appointment to the chair of Botany at the same University. It was while he was studying medicine in the Netherlands that he published his Systema Naturae and his Genera Plantarum, yet upon his return to Sweden his ability as a physician was so distinguished that he was called in consultation to the Royal Palace. He died of apoplexy in his seventieth year, in 1778.

It was Linnaeus' custom to allow his disciples to suggest the name of new species which they discovered and described. We are indebted to the name of the gardenia from this custom. John Ellis was a London disciple of Linnaeus, and through him, Linnaeus found an ardent follower in Dr. Alexander Garden of Charleston, South Carolina. Dr. Garden sent seeds of the gardenia, as we know it, to John Ellis, who in turn sent them on to Linnaeus in Sweden, and in 1760 Linnaeus gave the name "Gardenia" to this species. Many other physicians' names were given to plant species, attesting to the interest of men of medicine in botany. Among these species may be mentioned: Swietenia, Fuchsia, Gilbertia, Elsholtzia, Fothergilla, Dodanea, Witheringia, Sarracenia and Linnaea. The last of these—the twinflower—was Linnaeus' own favorite flower.

Today we find physicians all over the world as keenly interested in floriculture as they were in past centuries. For instance, Dr. C. T. Villett of South Africa reports the following interesting plant phenomena, and what fascinating questions they raise in a scientific mind! He describes one variety of succulents which has a seed pod so hard and tight that it requires the sharpest knife to open it, yet one drop of rain will cause it to spring open and distribute its seed. Spitting on it will almost instantly produce the same effect. He tells of plants which resemble the stones among which they grow. If these plants are found among two kinds of stone, some will resemble one kind of stone, the others will mimic the other kind. Other plants will turn green or brown, acquiring protection through this mimicry of surroundings. Some of the plants that resemble stones will not grow to perfection except in the neighborhood of certain stones; thus, one variety requires the nearby presence of white quartz pebbles for complete development. Dr. Villett declares that the medical mind is stimulated by noting that certain plants (Trichocaulon) is preserved by natives in brandy and used to cure colic; another (Pleiospilos Bolusii) is ground into powder and mixed with snuff for added stimulation; the bushman tips his arrows with snake venom mixed with the juice of another plant (Stapelia)

which prevents the wide dissemination of the venom through the animal killed by it for food —evidently a powerful vaso-constrictor.

It is only natural that the interest in fertility and sterility, growth and heredity, have prompted many physicians to grow flowers and to hybridize them. The officers of all plant and flower societies include many physicans on their rosters. If you wish further proof, attend any flower show, and you will find many physicians among the exhibitors. Two of the outstanding hybridizers of today's bearded Iris are Dr. Robert Graves of Concord, New Hampshire and Dr. R. E. Kleinsorge of Silverton, Oregon. Dr. Graves has introduced such famous Iris as Helen McGregor and Admiral Nimitz, while Dr. Kleinsorge is famed for his Iris of multi-colored blends, such as Bryce Canyon and Grand Canyon. Among the breeders of the modern gladiolus is Dr. Francis X. Graff of Freeport, Illinois. I could go down the list of all kinds of flowers and give you such examples of medical men who have contributed much to the advancement of the species. In California there is a Los Angeles County Medical Garden Club which holds flower shows with classes for Camellias, Iris, Azaleas, Orchids, Roses, Cacti, Succulents, and other species.

It is my plea that doctors recognize another great value of floriculture—its therepeutic value. I have been privileged in the past year to witness some truly remarkable demonstrations of this, and I have sought the reasons. I have been convinced that our armamentarium will be greatly increased if we can interest certain patients in floriculture. One striking case that I know about was that of a successful magazine writer who suffered a complete nervous and physical breakdown. Fortunately, someone got him interested in Hemerocallis, our old friend the lemon day-lily, which has in recent years been developed by hybridists so that it now grows in many different colors, sizes, patterns, and heights. Not only has this man recovered his physical health, but the flowers have changed his whole nature. He is now considerate, patient, friendly, and—most important—eager to live and to share his enjoyment in his flowers with others.

Tending a garden is something that one can do without help from others. If the whole world is unfriendly, one can find friends among the plants. They never wound delicate feelings, never poke fun at infirmities. They respond to kindness in the form of loving care. Yet one does not become attached to them as to an animal, whose death might upset the progress of rehabilitation. Soon one finds other people who are interested in the same plants, and discovers that humans aren't so bad after all. Most important, mentally, I think, is the fact that gardening gives something to live for—something to look forward to: there is always something to be done in the garden, new plants to bloom. If the patient can be induced to try hybridizing, there are years of experimental work to plan for. Life then seems all too short, instead of too long.

The physical benefits of floriculture are too obvious to require exposition here. Fresh air and exercise are often prescribed for patients, but the patient may find more interest and benefits from gardening than from brisk walks around the square. Just as the well-trained physician considers many diseases in his differential diagnosis, so should he be prepared to offer many types of therapy, and floriculture should be considered when he plans his treatment. It is not limited to the patient with an empty lot waiting to be planted, for apartment and even hotel dwellers can raise many fascinating plants. Orchids, cacti, and succulents are but a few that come to mind. Soon he will be encouraged to read about his plant hobby, and this may lead to trips to collect or study other specimens. Floriculture may be prescribed for cripples, elderly retired people, and women going through the menopause. It may effect cures on many others, including psychiatric cases, and I recommend it for your serious consideration.

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LICENSURE OF FOREIGN MEDICAL GRADUATES

(The Committee on Foreign Medical Credentials, an unofficial body sponsored by the Council on Medical Education and Hospitals of the American Medical Association and composed of invited individuals from organizations interested in the problem of foreign physicians is

issuing for the information of the public and the governmental agencies concerned with the licensure of physicians, a summary of the problems involved in the licensing of foreign medical graduates and its recommendations for their solution.

The membership of the committee includes individuals from the following organizations:

Advisory Board for Medical Specialties
Association of American Medical Colleges
Council on Medical Education and Hospitals
Department of State
Federation of State Medical Boards
Illinois Department of Registration and Education
Institute of Inter-American Affairs
Institute of International Education
W. K. Kellogg Foundation
Medical Examining Board of Connecticut
Minnesota State Board of Medical Examiners
National Board of Medical Examiners
New York State Board of Medical Examiners
Pan American Sanitary Bureau
Rockefeller Foundation
United States Office of Education
Wisconsin State Board of Medical Examiners
World Health Organization
World Medical Association)

The licensure of physicians who have received their medical degrees from foreign institutions seems certain to present a growing problem for the licensing bodies of the forty-eight states, the District of Columbia and the territories and outlying possessions of the United States and for the National Board of Medical Examiners. The unsettled economic and political conditions in many parts of the world have already stimulated many physicians to migrate to the United States and it may be predicted that the number seeking to migrate will increase in the years ahead. In addition, each year a number of Americans enter foreign medical schools with the expectation of returning to the United States to practice. Some of these students study abroad because they are unable to gain admission to an American medical college, while others do so from choice.

The problem of the physician who has graduated from a foreign medical school promises to confront the public, various legislative bodies and the licensing boards with increasing frequency during the next several years. The problem has important and far reaching implications for the health and safety of the people of the United States. It is important, therefore, that the public be provided with information to serve as the basis for intelligent opinion and that legislative and licensing bodies be prepared to adopt an enlightened policy in deciding questions pertaining to the licensure of foreign trained physicians.

Two basic principles are involved in the licensure of physicians whether they be graduates of domestic or foreign schools. The first principle and one that has long been recognized by all states and nations is the requirement that a physician satisfy a licensing body representing the public as to his competency before he is permitted to practice. This principle is essential for the protection of the public. Without this requirement, the people of a community cannot distinguish those physicians who are competent to provide medical care from those who are not.

Similar requirements for licensure or equivalent certification by an appropriate public agency have been established for the protection of the people in many professional and non-professional occupations. Such occupations include architects, dentists, engineers, veterinarians, lawyers, nurses, electricians and plumbers. The principle of licensure by legally created agencies of the state has become so well established in our society that its value and validity cannot be questioned.

The second principle involved is that the training a man has undergone in preparing to enter a profession is a paramount factor in determining the quality of his professional practice. It must be admitted that exceptional men may rise above the limits of their training, but this achievement is frequently accomplished only after years of experience in practice and additional training. To allow an inadequately trained physician to attempt to perfect himself through the mistakes of years of practice is to permit unwarranted and unnecessary abuse of patients who entrust their health and lives to him.

An important corollary of this second principle is that the best assurance of the quality of the training that a physician has received is an intimate knowledge of the faculty, facilities, curriculum and standards of the medical school from which he has graduated. The art and science of conducting examinations has not yet advanced to the point where full reliance can be placed on the results of the type of examinations to which licensing boards are limited by considerations of practicality. Only when the results

of such examinations are coupled with an evaluation of the quality of training that a physician has received can a licensing board be reasonably confident that a physician is adequately prepared to assume the responsibilities that are an inevitable part of his practice.

In licensing graduates of American and Canadian schools, the various state licensing boards have for many years had the benefit of the findings of periodic thorough surveys of these schools carried out by the two accrediting bodies, the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges. Some of the state licensing boards supplement this information with investigations of their own although it is beyond the resources of most boards to inspect periodically all the eighty medical schools in the United States and Canada.

It should be pointed out that the present high standards of medical practice in the United States has been the direct result of the recognition by the licensing boards that evaluation of the school from which a physician graduates is equally important as evaluation of the physician himself. Before this principle was generally recognized, the country was overrun with physicians who, armed with a degree from a low grade school or out-right diploma mill, succeeded in one way or another in passing the examinations for licensure. The needless suffering and injury perpetrated by the incompetent and at times fraudulent practices of many of these inadequately trained men constitute a dark chapter in the history of medicine.

While it has been possible for the two accrediting agencies referred to above to maintain current appraisals of the quality of education offered by American and Canadian medical schools, it has been beyond their resources to attempt to maintain a similar inventory of the three hundred or more medical schools in other parts of the world. For many years this was not important because the numbers of physicians migrating to the United States was small and most foreign trained physicians came from medical schools that were well known in America.

Between 1930 and 1939 two developments occurred that entirely changed the situation. Unsettled and unfavorable conditions abroad prompted large numbers of physicians to migrate to this country. At the same time, internal developments in many countries led to a rapid deterioration in the quality of medical education. This change, which was readily apparent to American physicians travelling abroad in the years immediately prior to the war, was greatly accelerated when these countries became involved in World War II. The pressures of the war reduced the quality of medical education in all countries, including the United States, but in many countries the effect was catastrophic. Faculties were decimated, buildings libraries and equipment were destroyed or badly damaged, all contact with scientific developments in other countries was interrupted and standards were lowered in an effort to turn out large numbers of physicians to serve the armies of the warring nations. By the end of the war, medical education in other countries, with few exceptions, had degenerated to a degree that was shocking to those who had known these countries in the period up to 1930. While medical education in the United States recovered quickly from the war and is now at the highest point in its development, unsettled political and economic conditions in many foreign countries have prevented any similar recovery. Even more disturbing is the fact that some foreign countries appear to be committed to educational policies that are so unsound and so inferior that there is serious doubt that satisfactory standards of medical education will be reestablished at any time in the foreseeable future.

It is against this background that the problem of the foreign trained physicians must be studied. Their complete exclusion from the United States cannot be reconciled with the traditional role of this country as the land of opportunity. The fact that few foreign countries will admit the graduates of American medical schools to practice should not be accepted as a valid reason for pursuing a reciprocal policy. It is well, however, for the people to know that the United States is the most liberal of all countries in licensing physicians who have not graduated from their own schools.

While a policy of complete exclusion cannot be defended, it is clear that until more information can be obtained about the present quality of medical schools abroad, the licensing boards would fail in their responsibility to the public if they did not use the greatest care and discretion in admitting foreign trained physicians to their examinations.

Detailed current knowledge of foreign medi

cal schools is indispensable for the guidance of state licensing boards in determining which foreign physicians have had sound training. It is essential that the various agencies concerned with this problem unite their resources and devise a satisfactory method for securing this information at the earliest possible date. It will not be an easy task and it is improbable that well documated evaluations can be made of all foreign schools in the same manner as is done for American and Canadian schools. The geographic and physical aspects of the problem alone present great difficulties. International relations will undoubtedly also limit the extent to which such a study can be carried out. One of the greatest difficulties will be to appraisse accurately the great changes and fluctuations through which many schools have passed and are continuing to pass.

From such a study, however, it should be possible to derive a list of foreign medical schools which have maintained during specific periods, or are now maintaining, educational programs sufficiently comparable to the training offered by the medical schools of this country to warrant the admission of their graduates to the examinations of the licensing boards of the forty-eight states, the District of Columbia and the territories and outlying possessions of the United States as well as the examinations of the National Board of Medical Examiners.

As an added safeguard it would seem entirely reasonable that whenever a candidate cannot present evidence to a state licensing board that he is sufficiently familiar with recent scientific advances in medicine, with the practices and customs of American medicine, and with the English language, that he be required to take additional training in this country before being permitted to appear for examination. There is every reason to believe that the various licensing boards can develop regulations covering these points that will be fair to the foreign graduate and adequate to protect the public.

The American people are today well served by the licensing boards which they have duly constituted by law to protect them from incompetent practitioners of the healing arts. It is to be hoped that the people will continue to have confidence that these licensing bodies are acting for their best interests according to well established principles.

The licensing bodies and the governments to which they are responsible have a heavy obligation to continue their efforts to maintain high standards of medical practice. They must also recognize that the spirit and tradition of America places upon them an obligation not to deny the opportunity to practice his profession to any citizen or prospective citizen who can demonstrate satisfactory qualifications as to his professional competence and character.

If the problem of the foreign medical graduate is approached in this spirit, the Committee on Foreign Medical Credentials is confident that it will be solved without lowering the standards of American medicine and in a manner consistent with our national ideals of justice and humanitarianism.

PHOENIX CLINICAL CLUB

BRONCHIOGENIC CYST

MGH Case No. 33461

A fifty-five-year-old housewife entered the hospital because of a mediastinal mass.

Eight years previously the patient had been admitted to the hospital for the first time because of a lump in the left breast. There were no other complaints. X-ray studies of the chest, spine and pelvis were negative.. A radical mastectomy was performed. The pathological diagnosis was adenocarcinoma (Grade II). The axillary lymph nodes were not involved. A cervical polyp was also removed. This, when examined microscopically, showed extremely severe squamous-cell metaplasia. Sterilization doses of x-ray were administered to the pelvis, and the patient was discharged. Six months later she was readmitted for a hysterectomy. The resected uterus showed an inactive endometrium and chronic endocervicitis. She recovered uneventfully. For several years thereafter she felt perfectly well, and numerous examinations, including at least one chest x-ray film, were entirely negative.

Approximately seven years after the original operation the patient reported for a periodic examination, complaining of weakness, weight loss and nervousness of six weeks' duration. These symptoms had begun quite abruptly. In spite of a normal appetite she had lost 13 pounds during this period. There had been some intol-

erance to heat and moderate palpitation, and dyspnea on exertion. She had noticed no swelling in the neck or prominence of the eyes. The bowel habits remained unchanged.

Physical examination at that time revealed a well nourished woman. The skin was warm and dry. There was a fine, even tremor of the hands and tongue. No abnormality of the eyes was noted. The chest and abdomen were normal. There were no enlarged lymph nodes. The thyroid gland was palpable but not enlarged, and gave no bruit or thrill.

The blood pressure was 138 systolic, 80 diastolic, the pulse 100, and the respirations 25.

The basal metabolic rate was plus 15 per cent. Urinalysis was negative. The cholesterol level was 223 mg. per 100 c.c., and the cholesterol esters 141 mg. A blood Hinton test was negative.

A routine chest film showed an oval-shaped, soft-tissue mass of smooth outline, measuring 5 or 6 cm. in its greatest diameter, in the region of the aortic arch. This mass compressed the trachea and displaced the esophagus somewhat to the right and posteriorly. Fluoroscopy confirmed the finding. The mass did not interfere with swallowing. The esophagus showed no motion in this region, and the mass appeared fixed to both trachea and esophagus. It did not pulsate but could not be separated from the aorta, which it seemed to displace slightly to the left. The heart and lungs were not remarkable. X-ray examination of the bones was negative.

A tracer dose of 100 millicurie units of radioactive iodine was given with 30.8 per cent excretion during the first twenty-four hours and 1.4 per cent during the second. The blood iodine was 8.7 microgm. per 100 c.c. Repetition of the basal metabolic rate and the blood iodine showed figures of plus 3 per cent and 5.3 microgm. per 100 c.c.

The patient was followed closely as an out-patient and improved a great deal during the next few months. The nervousness, palpitation and dyspnea gradually subsided without specific treatment. She gained several pounds in weight, and six months later was admitted to the hospital for study of the mediastinal mass. At that time she felt well, complaining only of slight palpitation on exertion. She had never experienced any difficulty in swallowing or pain in the chest. There had been a slight hacking cough for one or two years but no hemoptysis or increased sputum.

Physical examination revealed no noteworthy abnormality. The thyroid gland was not palpable, but there was slight tenderness to pressure over the right lower pole.

The temperature was 98°F., the pulse 70 to 80, and the respiration 20. The blood pressure was 136 systolic, 90 diastolic.

The x-ray appearance of the mediastinal mass was unchanged. Review of the previous chest x-ray films showed that this same mediastinal shadow had been present five years before and had not changed during this period.

An operation was performed.

DR. THOMAS BATE:

The case under discussion today is a 55-year-old woman who was admitted for study of a mediastinal mass. Throughout the protocol there is only one statement which may be interpreted as a symptom due to her mass—"there had been a slight hacking cough for one or two years, and no increase in sputum or hemoptysis." Her past history reveals the presence of adenocarcinoma of the breast, which was removed eight years previously. She also had a cervical polyp removed which showed severe squamous-cell metaplasia. This was followed by x-ray therapy and hysterectomy. Seven years after her operation during a periodical check up, she exhibited signs and symptoms of hyperthyroidism. The protocol states the thyroid was palpable but not enlarged. Her laboratory work, however, was in normal limits. The tracer dose of radioactive iodine was also within normal limits. The x-ray reports, quote, "A routine chest film showed an oval-shaped, soft tissue mass of smooth outline, measuring 5 or 6 cm. in its greatest diameter, in the region of the aortic arch. This mass compressed the trachea and displaced the esophagus somewhat to the right and posteriorly. Fluoroscopy confirmed the finding. The mass did not interfere with swallowing. The esophagus showed no motion in this region, and the mass appeared fixed to both trachea and esophagus. It did not pulsate but could not be separated from the aorta, which it seemed to displace slightly to the left." A little further in the protocol it states that this shadow had been present for five years and had not changed.

Practically all the tumors that mankind falls heir to may occur in the mediastinum, however, malignant tumors of the mediastinum very rarely last for five years. Apparently the man who examined this patient did not feel this was malignant. She was not given routine therapeutic tests or x-ray, and she was permitted several months care in the out-patient. On these two points we will dismiss most of the malignancies.

Benign mediastinal tumors have been classified many times. It is not necessary to interject classification at this time. The most common benign tumors, according to Brian Blades are: 1. Bronchiogenic cysts. 2. Dermoids and

Teratomas. 3. Primary nerve tumors, and 4. Pericardial cysts. In his series of 94 cases, he only found two aberrant thyroids of the mediastinum and one esophageal cyst. Thymomas, lymph nodes, lipomas, tuberculomas, fibroma and sarcoids are even more rare.

In a tumor in this location one must always consider aneurysm of the aorta. It is stated, however, that this tumor does not pulsate, which can be true on occasion with an aneurysm. However, the lack of pulsation, and the negative Hinton, I believe, give us grounds enough to dismiss aneurysm. There is always the possibility in patients who have had malignancy elsewhere in the body, especially of the breast to develop metastatic nodules in the mediastinum. The inferior peri-aortic nodes could conceivably be metastasis from the breast. I do not feel this is too probable because of the lack of change of this tumor in five years by x-ray.

The possibility of aberrant thyroid tissue in the mediastinum should be considered. James Rives of New Orleans reviewed the medical literature in the past ten years and was able to find only fourteen unquestionable cases of aberrant intrathoracic goiter. It would be nice to know if, when this patient had her radioactive iodine, her chest was searched with a Geiger counter. We note there was some radioactive iodine retained. If any were retained in the tumor mass itself, we would have rather strong evidence of intrathoracic aberrant goiter.

Dermoids and teratomas were the third most common mediastinal tumors in Blades series. They are made up of inclusion bodies which may include hair, teeth, and other elements of the various germinal layers, but unless teeth and bone are visible on the x-ray film, a positive diagnosis is rarely made until operation. These tumors usually occupy an anterior position, and have not been described in the area in which our tumor is located. Nerve tumors have not been described in this location.

Bronchiogenic cysts may be located: 1. Paratracheal, 2. Carinal, 3. Hilar, 4. Paraesophageal, and 5. Miscellaneous areas, including the pericardium or just in front of the vertebral bodies. The primitive respiratory tract has a common origin with the esophagus from the primitive foregut as a result of the lateral invasion of two septa. The foregut is divided into a ventral and dorsal component, the anterior forming the trachea and the posterior the esophagus. This close embryological association of the respiratory tract with the primitive foregut indicates the possibility of a close association of developmental anomalies of these two structures. A great many cases of bronchiogenic cysts are reported as located just beneath the bifurcation of the trachea, the so-called carinal type. Many of these cases do not have a demonstrable opening in either the trachea or the esophagus. The location of these cysts correspond closely with the most common site of congenital tracheo-esophageal fistula. In this area the bronchiogenic cysts may cause pressure on either the right or left main bronchus, or both. If the cyst is large it may compress the trachea. The cyst may also displace the aorta and cause some distortion of the esophagus. The x-ray description of our case seems to fulfill all these criteria.

Diagnosis: Bronchiogenic cyst of the carinal group.

Differential Diagnosis

Dr. Joseph C. Aub: A sorely needed mastectomy had been done eight years before entry. The uterine polyp probably never would have become malignant, and why so "much ado about nothing," I do not know. At any rate, x-ray therapy was given, I suppose because of the breast carcinoma. Why the uterus was removed puzzles me. It makes me think that she was a nervous woman or had a nervous doctor, but I get the impression that she was nervous. I do not know whether anyone has ever gone into the psyche of the patient at these exercises.

Seven years later symptoms due to either a neurotic storm or hyperthyroidism although the basal metabolic rate was only +15 per cent. The mass pushed the trachea forward not backward, and if this report is correct, it was fixed to the trachea, esophagus and aorta. It is were a thyroid tumor it should not have been fixed to the trachea or esophagus and should not have been posterior to the trachea. The description suggests a blood supply from the surrounding area, and therefore implies that the mass was not carried down into the mediastinum like a thoracic goiter.

"A tracer dose of 100 millicurie units of radioactive iodine was given with 30.8 per cent excretion during the first twenty-four hours and 1.4 per cent during the second." That certainly is in favor of hyperthyroidism. A hyperthyroid patient will hold on to a great deal of iodine

and not excrete it. The blood iodine was 8.7 microgm. per 100 c.c. If that was protein-bound iodine, it was above normal values and also suggests hyperthyroidism. Nothing is said about scanning the thyroid gland or mediastinum to see if too much radioactive iodine was retained there.

If the thyroid gland in the neck were shielded—and the amount of radioactive iodine in the mediastinum so determines—and if found high, one would have to make a diagnosis of mediastinal thyroid tissue. No such therapy as thiouracil was given. Is that right?

Dr. Tracy B. Mallory: Yes.

Dr. Aub: The second basal metabolic rate was +3 per cent, and the second blood iodine was 5.3 microgm. per 100 c.c. Those are within normal limits, so that we must decide that she did not have hyperthyroid disease. The hacking cough is much more suggestive of neurosis than hyperthyroidism, although patients with mediastinal thyroid glands may cough. The lack of pain in the chest and the lack of sputum and hemoptysis are against a recurrence of the breast tumor.

May we see the x-ray films?

Dr. Stanley M. Wyman: The original film was initially interpreted as normal. I certainly would call it normal if reading it routinely. As the subsequent examinations unfold, however, and the mass in the mediastinum is noted, it is apparent in review of the first film that there is increased density and that the tracheal shadow does not come down to the upper border of the aorta as it should. This mass is really ovoid. It comes down very close to the aorta and pushes the trachea to the right. In the lateral view the trachea is seen to be displaced anteriorly and is considerably compressed, measuring half the normal diameter. The esophagus is pushed backward. This is a plain film showing the mass. The oblique view shows a good mucosal pattern in the esophagus, with no significant delay or obstruction. The mass is in contact with the wall of the esophagus, and probably adherent to it. The same can be said of the trachea in this view, because the outline of the trachea is slightly irregular and nodular.

Dr. Aub: Is the trachea definitely anterior to the mass?

Dr. Wyman: Yes; and the esophagus is posterior to it. The statement is made that the mass could not be separated from the aorta, but I believe that one can outlinee the aortic arch at that point, with the mass lying to its right. The mass apparently has not changed in five years.

Dr. Aub: The first decision to make is whether this mass was benign or malignant. Did it have anything to do with the carcinoma of the breast, or was it related to the uterus? Was this an additional cancer? I do not believe that it was a malignant tumor. It had been present for five years and had not enlarged. It was adherent, which is suggestive of malignancy, but the edges were smooth. It did not grow into the esophagus. There is no evidence that it was growing into the trachea, except for cough, which may have come from impingement on the trachea. Therefore, I think that this was a benign tumor. I shall be disappointed if that diagnosis proves wrong.

The next question is whether that was a benign tumor in contradistinction to intrathoracic thyroid tissue. That seems to me to be the significant differential diagnosis in this case. There are two important points. That the mass was adherent to the esophagus and trachea and did not invade either of them suggests to me that the blood supply was local rather than one carried down from the neck. Therefore, the trouble may have been an inflammatory condition, such as tuberculosis, rather than a benign tumor, but since I do not see any suggestion of tuberculosis in the lung, I have no right to make that diagnosis. The second important factor—and one that I think is also against a mediastinal thyroid gland—is the position of the mass behind the trachea. I do not know of a mediastinal thyroid gland in that position.

There is evidence for hyperthyroidism. As I have already said, the patient appears to have been a nervous woman. Certainly, she was willing to be operated on. There is not a great deal to suggest hyperthyroidism, except for the first radioactive iodine test, and I am not sufficiently convinced about that to lay too much stress on it. At any rate the differential diagnosis rests between hyperthyroidism with a substernal goiter and a benign tumor that had been present a long time. Let us discard that thyroid gland because of the position, adherence and lack of consistent evidence of toxicity. Let us say that it was a benign tumor. If a benign tumor, it must have been one of the connective-tissue tumors, and, on the whole, judging by the law of chances, it would be a neurofibroma. This last part is pure

guesswork. I think that the patient should have been operated on if this was an adenoma of the thyroid gland and even if it were a benign tumor, because there was no way of determining what it was; such an operation is good cancer therapy, to avoid the possibility of malignancy and metastasis from the breast, which I do not consider likely. I should guess mediastinal adenoma of the thyroid, and I believe that the diagnosis is wrong. What was the hospital preoperation diagnosis?

Dr. Helen B. Pittman: We went through all the same troubles that Dr. Aub has, but for a much longer time. The patient was not a nervous woman. She was co-operative and somewhat irritated that we paid so much attention to the symptoms that did not bother her. Hysterectomy was done because she had an easily bleeding cervix that looked abnormal, and we thought that it should be removed. We followed her in the thoracic clinic, and Dr. Schatzki did a great deal of fluoroscopy on her. The initial group that saw her thought that the diagnosis fell between metastatic node and mediastinal thyroid gland, and since one does not operate on metastatic lymph nodes in the mediastinum, she was given iodine, to determine if we could pin the trouble on the thyroid gland. She remained in good health, and the mass did not change in appearance. It was decided that it was benign.

Some months later the opinion was that the lesion was probably either a bronchiogenic cyst or an intramural or extramural tumor of the esophagus, which ought to be removed as good general prophylaxis.

Dr. Earle M. Chapman: This patient was seen in the Tumor Clinic, where opinion varied. I can sum it all up by reading the final note made by Dr. Cope: "The diagnosis is impossible, short of operative exposure."

Dr. Donald S. King: Dr. Castleman thinks that I ought to be able to name the lesion, but I cannot. I did not see the patient. It seems to me more like a tumor in the esophageal wall. That is the best that I can make of it.

Dr. Wyman: I would be surprised if this were a tumor in the esophageal wall, Dr. King.

Dr. King: Could it not be in the wall and not involve the mucous membranes?

Dr. Wyman: Such tumors usually cause more spreading of the esophagus, especially a mass of this size. With intramural lesions the esophagus appears more adherent, is displaced more and is thinned.

Dr. King: Yes; but I remember a case that did not; I, therefore, think that it is still possible that this was an esophageal-wall tumor.

Clinical Diagnosis

Mediastinal cyst.

Dr. Aub's Diagnosis

Benign intrathoracic tumor of connective tissue (not intrathoracic goiter).

Neurofibroma?

Anatomical Diagnosis

Bronchiogenic cyst.

PATHOLOGICAL DISCUSSION

Dr. Mallory: This patient was operated on by Dr. Richard H. Sweet. He found a tumor mass very densely adherent to the trachea, to the esophagus and to nearly all the other surrounding structures. In attempting to mobilize it he broke that wall and released some mucoid fluid similar to that commonly seen in bronchiogenic cyst. He was eventually able to free the cyst entirely and get it out in a collapsed state.

The microscopical sections from the wall of the cyst showed that it was lined with ciliated respiratory epithelium. Usually, cartilage is also to be found in the cyst wall. In the case under discussion we did not succeed in identifying cartilage, although there were old foci of calcification. This is not a rare location for bronchiogenic cysts. It is the same region in which tracheoesophageal fistulas are found, and abnormal bronchal buds in this area are common and may develop into cysts of considerable size.

REPORT OF THE DELEGATE

House of Delegates, American Medical Association, June 6-10, 1949

Dr. Ernest E. Irons, Chicago, Ill., was inducted into the Presidency of the Association at the Atlantic City Session. Dr. Elmer L. Henderson, Louisville, Ky., retiring Chairman of the Board of Trustees, received the unanimous endorsement of the House for President-Elect, while Dr. Louis H. Bauer was re-elected for another five-year term to the Board; Dr. F. J. L.

Blasingame, Wharton, Texas, will be a new member. Dr. George F. Lull was re-named Secretary, and Dr. J. J. Moore, re-elected Treasurer. Dr. Seale Harris, Birmingham, Ala., received the majority vote of the House on the second ballot to receive the Distinguished Service Award of the A.M.A.

During the early hour of the first meeting, the Speaker of the House recommended that he be given authority to appoint a Committee on Publicity of House Activities, from among the House members, to confer with accredited officers and public relations staff of the A.M.A. to handle all news releases. This request was granted.

Several items of interest to the membership were included in the report of the Board of Trustees to the House. Among these included an announcement that the editor of the A.M.A. Journal would be retired in due course, during which time plans for the training of a new editor will be formulated. In the meantime, from this time until retirement of Dr. Fishbein, his diary will be eliminated from Tonics and Sedatives; he will eliminate all speaking engagements, both by platform and by radio, on all controversial subjects, and refrain from granting interviews, including press conferences and statements, except on scientific subjects. Furthermore, all editorials bearing upon controversial subjects will be supervised by the Executive Committee of the Board, and if he wishes to speak of any matter, the Executive Committee shall grant approval. The Chairman of the Board, in speaking of the editor, paid tribute to his 37 years of faithful service, his genius and devotion to the high ideals of medicine.

Included also in the report of the Board was a resume of the work and recommendations of the Committee on Nursing Problems, together with the administration regulations and By-Laws of the joint committee for the improvement of the care of the patient, whose membership will include representatives of the American Hospital Association, the American Medical Association, American Nurses' Association, and the National League of Nursing Education. The A.M.A. representatives feel that this commission has potentialities for great good, because it is the first time that these four large groups representing the healing arts have had a forum to discuss and attempt to solve problems common to all—the care of the patient.

The report of the Committee on Hospitals and their relation to the practice of medicine will be of interest. Many resolutions have been introduced into the House in years past relative to this problem.

A special committee of the House has been studying this problem for the past year. Appended to this report will be found a summary of a study relating to the corporate practice of medicine in this country prepared by the Bureau of Legal Medicine and Legislation. The content of this subject is entirely too long to quote, so the reader is referred to the A. M. A. Journal, June 18, pages 619 to 629.

The chairman of the Board also presented to the House a revised 12 point program for the advancement of medicine and public health, with the hope that the House would further elaborate upon them, so that they can be implemented into greater detail for effective action. Included in these statements are comments relative to certain national legislative proposals now before the Congress. Each doctor should read these in detail in the June 18th Journal, pages 628 to 630.

At this session of the House, a number of recommendations submitted by the Council on Medical Service were adopted. First and foremost was the report relative to Lay-group Sponsored Prepayment Medical Care Plans. The Council had a number of meetings with representatives of Labor, Farm Groups, Industrial Groups, and Consumer Health Cooperatives. Working through small correlating committees from each of the groups, and eventually leading to a meeting of the Council with representatives of all these groups, a set of principles was adopted, and approved by the Board of Trustees. The suggested principles for lay-sponsored voluntary health plans formulate standards for this particular type of medical practice, and places a direct responsibility on lay-sponsored plans to see that the participants receive a good quality of medical care, and conform directly with the code of ethics of the American Medical Association. The House of Delegates adopted this set of principles to guide cooperative or consumer-controlled groups when providing medical service to their constituents, leaving the approval of such groups, of course, first to the local county or state medical associations before any plan would be elig-

ible for approval by the Council on Medical Service.

The action taken by the House of Delegates in accepting this report marked another forward step in the rapid development and expansion of all types of sound prepayment medical and hospital care plans sponsored by groups outside the Blue Cross and Blue Shield, or other State Medical Association programs. The announcement of this action resulted in widespread publicity throughout the nation over the press with many favorable editorial comments, and was greeted with approbation by the officials of the Cooperative Health Federation of America, which organization includes in its membership many of the groups participating in these discussions. The 20 point suggested principles for lay-sponsored voluntary health plans will be found in detail on pages 686 and 687 of the June 18 Journal.

Several other recommendations submitted by the Council on Medical Service were adopted. These included:

1. The formation of a national coordinating agency representing all qualified voluntary prepayment plans, and to this end the House directed the Board of Trustees to arrange for a National Health Conference sometime later this year, to which representatives of all plans, regardless of sponsorship, would be invited.

2. That official connection between the American Medical Association and the A. M. C. P. (Blue Shield Plans) be severed, believing that the A. M. C. P. has now reached a state of development where it can function under its own power more effectively as an autonomous trade organization. The House of Delegates, however, instructed the A. M. C. P. that it could not determine basic policies for American Medicine in expanding prepayment insurance benefits, and any future developments determined upon by this organization would have to be evaluated by the proper accrediting bodies of the A. M. A. The House did support the A. M. C. P. in their statements relative to an expansion program, particularly applied to the enrollment of national accounts, and approved the desire of A. M. C. P. to continue development of an enrollment agency in this field, with instructions to use their best judgment with respect to methods, means, procedure and form of organization by which problems relating to national accounts may be solved.

3. The House of Delegates accepted for approval also the suggestion that the Council on Medical Service, through its several correlating committees, cooperate with Whitaker and Baxter in the development of the positive phases of the National Education Campaign through nationwide promotion of voluntary health insurance on all fronts, and endorsed the principle of an active program of field promotion to bring about increased enrolment through all approved voluntary health programs and plans in the shortest possible time.

(To be continued in next issue.)

Respectfully submitted,
Jesse D. Hamer, M. D.
Phoenix, Arizona.

SURPRISINGLY LOW PROTEIN INTAKE OF PREGNANT WOMEN

Six separate investigations* on the protein intake of pregnant women are in striking agreement concerning the low percentage of patients obtaining an amount which is regarded as an adequate daily protein intake. As a criterion, these investigators used protein intakes of 80 or 85 Gm. daily. The percentage of patients obtaining at least these amounts was low, ranging from 7 to 37 per cent. The use of Mead's concentrated protein foods, Protenum and Casec, greatly simplifies the problem of encouraging an optimum intake of protein during pregnancy. Both of these preparations, consisting of protein of high biologic value, are palatable and can be incorporated in a number of attractive recipes.

For literature on Protenum and Casec, write Mead Johnson & Company, Evansville 21, Indiana.

* Bibliography on request.

SQUARE AND COMPASS
CRIPPLED CHILDREN'S CLINIC
Tucson, Arizona

Dr. Frank J. Milloy, M. D., Editor
"Arizona Medicine"
401 Heard Building
Phoenix, Arizona

Dear Dr. Milloy:

We need help—your help—because we have a tremendous job to do. The enclosed Brochure, and list of facts will tell part of the story. We have picked out a few of the select newspapers throughout the State to help us. We are building this Clinic primarily for Southern Arizona, but will need the help of the entire State to make it a success. Our little Clinic is now giving 106 treatments a week, but we should be giving 400, so you can readily see why we need your help. Enclosed you will also find a mat of the building. The story will be released in the Sunday newspapers, both in Tucson and Phoenix, May 8th.

This is strictly a charitable project, and will be operated by a non-profit organization, made up of a group of Masons. The only qualification for treatment will be the need of it. We are mailing out these Brochures to 8,000 Masons throughout the State from whom we expect to get one half of the money, the other half coming from the general public and various organizations. May we count on you to give this project the greatest amount of coverage possible? However, we know that we do not have to ask that question. We feel that you will give it your full support. If there are any other questions that may arise from your point of view, do not hesitate to call upon us. If you are in the vicinity of 3100 E. Ft. Lowell in Tucson, drop in and see our Clinic, as we are now operating.

Thanks very much,
Sincerely,
Square & Compass Crippled
Children's Clinic.
By Ted Walker.

BOOK REVIEW

THE CASE AGAINST SOCIALIZED MEDICINE. By Lawrence Sullivan. Cloth. Price $1.50. Pp. 53. Statesman Press, National Press Bldg., Washington 4, D. C.

In seven short chapters the author presents a number of the arguments against socialized medicine. He describes socialized medicine as it would exist in this country under the Wagner-Murray-Dingell Bill, and likens it to similar systems which have proven unsuccessful in Germany, Austria, Russia, England, and New Zealand. He points out that the American standards of medical practice and the results thereof (lowered mortality and morbidity rates, increased span of life, etc.) are now the best in the world. He shows how bureaucrats use governmental agencies and public funds to spread propaganda favoring socialized medicine and in this connection mentions specifically the so-called Health Work Shops. He describes the manner in which Selective Service statistics on draft rejections have been misquoted and misinterpreted by these government propagandists in an effort to discredit American Medicine. He points to the extremely high cost we might expect of such a program. He brings out the fact that Communism looks on socialized Medicine as "the keystone of the arch of the Socialist State" (Lenin), and that all American communists and fellow travelers favor the plan. He tells how political medicine has already worked out in the United States in the workings of the WPA in 1936.

The small booklet should be important reading for anyone who is not afraid to learn some of the arguments against socialized medicine.

"ESSENTIALS OF GYNECOLOGIC ENDOCRINOLOGY," by Gardner M. Riley, Ph. D., Assistant Professor of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor. Price $3.00. Pp. 205. Caduceus Press Box 17, Ann Arbor, Michigan.

This small booklet, designed "as a source of endocrine information for medical students, internes, and those of the medical profession whose daily lot it is to deal with the vagaries of male or female gonodal function," has presented in a concise understandable manner the known facts and theories of gynecologic endocrinology. Sections on male endocrinology add to its value.

The book is comprised of three parts, endocrine physiology in section one, clinical endocrinology in section two; and finally a third section on diagnostic procedures, sex hormone chemistry and endocrine preparation. Appropriate charts, illustrations and graphs enhance the simplicity of presentation of the complex subject.

The relation of the liver to sex endocrinology was not apparently mentioned, although recently attention has been directed towards varied endocrinologic changes in the human associated with liver failure. Nevertheless, the booklet is a very complete one that can be highly recommended to all to bring themselves up to date on this rapidly developing field in which there is such a vast literature. W. H. C.

PERSONAL NOTES

(Note:—Items on the State Medical meeting are not included. I expect that they will be mentioned elsewhere, or by someone who attended.)

DR'S. DONALD A. POLSON and **W. ALBERT BREWER,** Phoenix, were recently in Los Angeles, where they successfully passed their final examination before the American Board of Surgery, and are now Certified by that board.

DR. ZEPH B. CAMPBELL, Phoenix, appeared before the American Board of Obstetrics and Gynecology in Chicago in May, and has been Certified by that board.

DR. MARRINER W. MERRILL, Phoenix, attended the Ogden Surgical Convention in Ogden, Utah May 23rd to May 25th.

DR. HAROLD W. KOHL acted as moderator at a round table discussion at the meeting of the American College of Chest Physicians, held at the Ambassador Hotel, Atlantic City, New Jersey. The subject was "Tuberculosis in the Older Age Groups."

DR. CHARLES E. VAN EPPS, Phoenix, won the annual golf tournament at the American Medical Association Annual Convention in Atlantic City, New Jersey. It might be recalled at this time that this is sort of becoming chronic in Phoenix, as E. Payne Palmer, Jr. and Duke Gaskins carried away similar honors at the Chicago meeting in June of last year.

DR. HOWARD BOSWORTH, medical director of Barlow Sanatorium in Los Angeles, and recent president of the American Trudeau Society, spoke before the staff and guests of the Veteran's Administration Hospitals in Tucson and Phoenix during May. His topic was "Management of the Minimal Lesion in Pulmonary Tuberculosis," and data were derived from an extensive survey of nurses.

CLYDE W. FOX, superintendent of the Tucson Medical Center for the past three years, has resigned to become superintendent of the Washoe General Hospital in Reno, Nevada. On inquiry it has been found that the change is due to his preference for organizational work; the Tucson hospital is now running well, but the Reno hospital is said to need a change. The TMC has completed its building program, has increased its capacity from 120 to 200 beds, and is a fully accredited institution. Mr. Fox, who is a graduate of Michigan, and was a major in the medical corps, has been head of the Arizona Hospital Association and a state director of the Blue Cross plan.

DR. C. E. DuVALL of Tucson has taken a trip east, during which he will visit clinics in St. Louis, Detroit, Pontiac, and Cleveland.

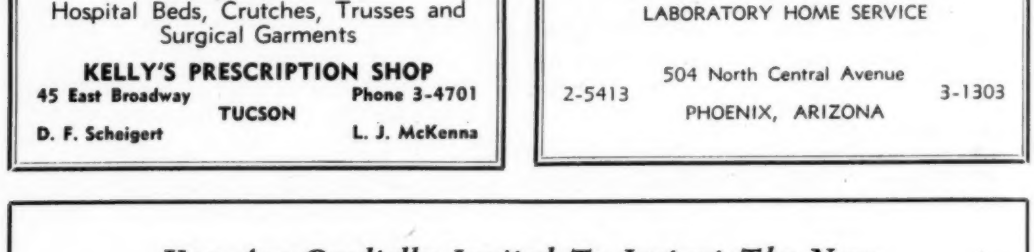
DR. W. MAX CHAPMAN, technical director of the National Blood Program for the Pacific area, discussed new methods of handling and processing blood at a recent meeting in Tucson of the chapters participating in the Southern Arizona regional program. Dr. Chapman lauded the ingenuity which has been used in the local arrangements.

A cooperative drive to build a new institution, to be called the Square and Compass **CRIPPLED CHILDREN'S CLINIC,** has been launched in Tucson. It is planned that the facilities will be ready by August, and will serve the 400 or more children in that area. Funds have been raised by the Shrine Club, churches, service clubs, and individuals, including "marathon radio appeals," etc. Labor unions, architects, and other groups are helping in the construction at little or no cost. The Clinic will be located at 2900 East Broadway.

The **ARIZONA PUBLIC HEALTH ASSOCIATION** has elected C. E. Reddick, acting director of the Maricopa County Health Department, as its president-elect. **DR. ROBERT ROTHERMEL** of New York, a staff member of the American Public Health Association, spoke at the meeting, and urged the construction of more beds for tuberculosis. He estimated that 700 beds are needed in Arizona at present. **DR. J. P. WARD,** director of the Arizona State Health Department led the discussion in "workshop" sessions.

Among the physicians who appeared at congressional hearings on plans to accelerate research was **DR. W. PAUL HOLBROOK** of Tucson. He supported a bill to allocate funds for arthritis. Dr. Holbrook also attended the International Congress on Rheumatic Diseases in New York. Dr. Holbrook joined with **DR. DONALD HILL, C. A. L. STEPHENS, L. J. KENT** and **EDNA McCARTHY** of Tucson in presenting an exhibit on therapy of rheumatoid arthritis at the American Medical Association meeting; addressed the general scientific section of the meeting on "Rheumatic Diseases;" and, with Dr. Hill, presented a paper on the "Prevention and Treatment of Deformities of Rheumatoid Arthritis" before the Section on Internal Medicine and Experimental Medicine and Therapeutics.

The U. S. Public Health Service dental team will renew its visits to Arizona communities, and provide **SODIUM FLUORIDE TREATMENTS** to school children. Prescott, Flagstaff, Kingman,



Winslow, McNary, Yuma, Thatcher, Morenci, Miami, and the Sunnyside school district of Tucson are scheduled.

DR. D. L. SECRIST and **DR. DONALD LEWIS,** one-time members of a famous Washington and Jefferson football team, have recently been members of the Tucson YMCA volleyball team which played in the national senior championships in Los Angeles.

DR. JESSE D. HAMER was the state delegate from Arizona at meetings of the House of Delegates of the A.M.A. in Atlantic City.

DR. C. A. THOMAS was awarded a medal and scroll by the Pan American Congress of Tuberculosis which met recently in Mexico, D. F. The citation was for work in chest surgery and the control of tuberculosis. Dr. Thomas, of the Thomas-Davis Clinic in Tucson, has been retiring from active practice.

DR. JEREMIAH METZGER, chairman of the Arizona State Hospital board of control, has sailed for Europe with a group of twenty-five physicians. They will visit hospitals and clinics in Glasgow, Edinburgh, Oslo, Stockholm, Copenhagen, Hamburg, Frankfurt, Munich, Vienna, and Paris. Dr. Metzger will make a special trip to see the Colony for the Insane in Gheel. Speculation on his tenure as board member continues unsettled.

DR. ARIE VAN RAVENSWAAY, who has recently come to practice in Tucson from Booneville, Missouri, has joined the teaching staff of St. Mary's Hospital school of nursing. He will teach gastro-intestinal medicine. Dr. van Ravenswaay received his training at Washington University in St. Louis, Massachusetts General Hospital, and the Lahey Clinic. He is a member of the American College of Physicians.

DRS. FARIS, HAYDEN and **PRESENT** have announced the association of **DR. HERBERT D. WELCH** in their diagnostic x-ray group in Tucson. Dr. Welch, formerly of Phoenix and New York City, will be in charge of the branch laboratory at 522 N. Tucson Boulevard.

DR. CHARLES STEPHENS discussed socialized medicine at the Tucson Optimist Club.

DR. HARRIET BARITELL of Tucson is taking a post-graduate course at Yale Medical school this summer. Dr. Baritell is an associate of **DRS. BENSON BLOOM** and **DR. CLARENCE ROBBINS.** Dr. Robbins attended a meeting of the society in Atlantic City on May 2-4.

DR. HAROLD KOSANKE of the Tucson Clinic attended sessions of the American Trudeau Society at Detroit, Michigan. Dr. Kosanke is president of the Arizona Trudeau Society.

Young physicians were urged to "go southwest" by the directors of two medical service bureaus at the recent meeting of the American College of Physicians in New York. Increasing population, higher income, and a lack of medical schools in Arizona, New Mexico, and Texas were given as reasons for the advice.

DR. RICHARD B. MILLER, of 2609 East Seventh Street, Tucson, received his M. D. from Vanderbilt University in June. He will intern at the Butterworth Hospital, Grand Rapids, Michigan. **DR. LOUIS FRISCHE, Jr.,** of 1050 North Ninth Avenue, Tucson, received his medical degree from Harvard College Medical School in May. He will intern in Portland, Oregon. Dr. Miller is a native Arizonan, and Dr. Frische received his education in Tucson schools.

DRS. PHILLIPS, STRAUSS, SECRIST, KOLIUS, WHITEHILL, WADDELL, McGOVERN, SEMOFF, KAHN, PASTERNACK, STRODE, COCHRAN, MARCUS, STORTS, BARITELL, and **SICKLER** have assisted in the routine physical examinations given all Girl Scouts attending the two camps in Tucson this summer.

Two sections will be added to the **PIMA COUNTY GENERAL HOSPITAL** at Florence during the summer. The new portions will add sixteen beds to the present capacity of forty-two. The cost will total $50,000, plus $10,000 for equipment, and will be partly borne by a federal grant.

The **LOIS GRUNOW MEMORIAL CLINIC, Inc.,** of Phoenix, has established and endowed a chair in surgery at Northwestern University Medical School. Dr. Loyal Davis, professor of surgery and chairman of the department, has been named the first Grunow Professor of Surgery. The Clinic was founded in memory of his daughter by William C. Grunow of Lake Geneva, Wisconsin in 1930.

DR. FREDERICK GIBBS of Chicago has completed his work in inaugurating a program of treatment and research on epilepsy at the Arizona State Hospital, after a month's visit. The program will now be carried on by staff members and consultants, and will care for more than 140 patients.

More than a hundred delegates from out of state attended the 12th annual convention of the American Association for Health, Physical Education, and Recreation in Phoenix. The conference was addressed by representatives of the U. S. Public Health Service, of the National Foundation for Infantile Paralysis, and by nu-

merous physical educators from various parts of the United States.

Several obstacles have arisen during the early regimen of **DR. BRUCE HART** as superintendent of the Arizona State Hospital for the Insane. A staff member had to be discharged when it was found that he was unqualified to practice, or to have a license. The legislature reduced the hospital budget request by $400,000, and it was reported that about seventy employees would have to be laid off. Governor Garvey announced that he would allow the board of control to draw on future quarterly budgets. The legislature expects to re-examine the budget situation at the next session.

The Journal American Medical Association May 7th, 1949 listed the **EL SERENO LODGE SANITARIUM,** 11th Ave. and West Broadway, Phoenix, as one of the registered and approved type of service in N and M. The public is invited to visit at any time.

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Organized 1892

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Woman's Auxiliary

CLAIRE D. IRVINE
(Mrs. George Burgess Irvine)
Historian of the Auxiliary to the Arizona State Medical Association

Mrs. Irvine was born in Nebraska; schooled in South Dakota; graduated in nurses training 1920, from the Minneapolis General Hospital, specializing in Public Health work, University of Minnesota. She was married to Dr. George B. Irvine, in Minneapolis on October 21, 1920, coming to the Valley the fall of 1926.

She was school nurse in Tempe six years, and being a Red Cross Nurse was active in all Red Cross work during World War II, teaching Home Nursing and Nurses Aide classes.

Mrs. Irvine was appointed State Historian April 1938-39 and is still serving in the same capacity, 1949. She also served the Maricopa County Medical Auxiliary as Secretary and Treasurer 1939-40 and most of the year 1940-41; also appointed historian to the Woman's Auxiliary to the Maricopa County Medical Auxiliary 1941-1949. At the present time, aside from her interest in all local health projects, Mrs. Irvine is active in a number of community organizations.

THE STORY OF A BEGINNING

History is not just a series of dates and names; it is a record of great, sweeping movements across the pages of time. Some dates and names are seemingly of more importance than others so that we remember them, yet it is difficult to evaluate with any accuracy the importance of one date or one personality over another. Some personalities have been set in a place of responsibility at a time when events have called forth all their talents. They have met the challenge of the times but that does not preclude the fact that others might have done as well if given the same opportunity. So we evaluate history, not on personalities, but in the last analysis on events as they have impinged on society at the time, and their future unfolding contributions. What is true of any history is also true of the story of the Woman's Auxiliary to the Arizona Medical Association.

In the annals of medical history it is not on record that a baby's birth ever preceded its parent, but the Woman's Auxiliary to the Arizona Medical Association is unique. To be sure its progeny was not a husky infant at first, but Maricopa County Auxiliary had at least passed through the birth canal six years before the State Auxiliary was conceived in 1930. It was this year that the Arizona State Medical Convention met in Phoenix, and the State Auxiliary was organized in the home of Mrs. F. G. Holmes, with Mrs. O. H. Brown elected as pioneer president. Constitution and By-Laws were drawn, with Officers and House of Delegates elected, and various Committee Chairmen appointed.

In Article II it is interesting to note the "Object" of the State Auxiliary: "The object and purpose of this Auxiliary shall be to aid in promoting the aims and objects of the Arizona Medical Association, and to serve as an ally to that organization in developing its program of health education and public welfare. It shall not take any action contrary to or independent of the advice of the Medical Society of Arizona." What a far vision this was from the purely social organization which was the beginning of Maricopa County Auxiliary.

Within three years the State organization was working energetically and intelligently on such projects as:

1. *Public Health*
   (a) Hygeia was in the hands of all of the schools of the state.
   (b) In 1936 national recognition came for the amount of Hygeia subscriptions in the state of Arizona.
2. *Public Relations.*
3. *Legislation.*
   (a) The first venture for which the Doctors asked help was the Basic Science Law which was finally passed.

Soon the Auxiliary extended its scope of service in a large way when the war challenged every organization to give its "last full measure of devotion." The war years proved the State Auxiliary was no "pink tea" outfit, but an organization with strong, sustaining nerve and muscle as well as brain. The record speaks eloquently of those war years; of many posts "manned" by the Auxiliary as a unit and as individual members. From this perspective it seems a miracle was accomplished. When one considers how young the Auxiliary was; feeling its way into new fields of service, it was truly a miracle that so much was accomplished in the great emergency of the war. In one year alone 30,844 hours of volunteer services were given by Arizona Doctors' wives in various fields of need.

After every war in history there follows constant argument "far into the night" as to WHO won the war. Arizona Auxiliary does not claim to have won World War II, but it does take great pride in the many facets of service covered. They ranged from aid to the government in selling bonds, through every phase of Red Cross work, health programs in schools, to the woolen drive for Sister Kenny's treatment of Polio, and beyond ad infinitum. Many who had been nurses before marriage sacrificed to go back into their profession for the "duration" because of the great need, and many sent their men overseas for duty. This put an extra burden on the Doctors left here but also added to the aid given them by their wives; thus the Auxiliary service was extended truly around the world. The war restrictions made it an impossibility to hold a convention in 1945, but a Board meeting was held in Tucson to elect officers and hear reports. Those reports were heartening from all organized County Auxiliaries.

In 1943 the Cancer Project was instituted and in 1943 and 1944 the State Auxiliary received national recognition for the services rendered the American Cancer Society. All through these years of such active participation in the work of the American Cancer Society, our own Mrs. Thomas Hartgraves has been the Commander for the State of Arizona, American Cancer Society, and is still serving in that capacity. Hers has been the guiding hand, but the story is somewhat like the Biblical story of the Israelites fighting the Amalekites. When Moses held up his hand the Israelites prevailed, and when he let them

(Continued on Page 75)

(Continued from Page 71)

down Amalek prevailed, so when his hands grew tired Aaron and Hur stood one on each side of him, helping to hold up his hands until Amalek was defeated entirely. So it is with the Cancer Drive and will continue to be until this modern "Amalek" is defeated. There have been and still are hundreds of Auxiliary members who stand in the place of Aaron and Hur to help hold up the hands of our Commander in Arizona. Because of their numerical strength and strategic, central location some Auxiliaries have been able to reach a larger group for education and collection of funds for this work, but all have served to their greatest capacity where circumstances has placed them.

This brings us to the question of the offspring of the State Woman's Auxiliary. Ours is a large state, but with few exceptions its cities and town are widely separated over long distances. This accounts for the fact that there are only four branches which are active at present although two others have been organized. It is hoped that these two counties, Graham and Yuma, inactive at present, will soon join with Gila, Maricopa, Pima and Yavapai Auxiliaries in the onward push of the service of the State Auxiliary. The County Auxiliaries were organized as follows: Gila, December, 1946; Maricopa, October, 1924; Pima, January, 1932; Yavapai, March, 1937; Graham, April, 1930; Yuma April, 1937. Because of their location in the two largest cities in the state, Maricopa and Pima County Auxiliaries are the strongest. However, who shall say whether or not these two counties are stronger than their smaller sisters who have to draw from areas that resemble pioneer days as to distance? All are growing and doing the job where nature has set them down and trying to meet the increasing challenge of the times. The truth of this statement is found in the hundreds of dollars Gila Auxiliary raised for the Cancer Drive; the tremendous project carried out in 1949 by the Yavapai Auxiliary when they raised sufficient funds in a week to pay for an iron lung with its accessories for the use of Prescott and vicinity; the Student Nurse Loan Fund now carried on by both Pima and Maricopa Counties as well as the countless other projects which are common to all Auxiliaries, such as March of Dimes, Red Cross, Easter Seals, Tuberculosis Seals (The State Auxiliary gave three $100.00 bonds to the state essay contest for High School students on the subject "What's New in Tuber-

culosis."), Community Chest, Christmas gifts for the needy, Crippled Children's Hospital, etc.

As the years have made chapters of the life of mankind so have they added chapters to the work of the Woman's Auxiliary to the Arizona Medical Association. Little by little but surely the vista of service has enlarged until it covers all phases of Public Health and Community Welfare. A handbook has come into being, listing as one objective of the State Auxiliary "To interpret the aims of the medical profession to other organizations interested in the promotion of health education." This objective took the Auxiliary out of a purely medical picture and placed it squarely in the very heart of the state and communities comprising it. Thus the influence spread into every crevise of public service. Perhaps the most significant, far-reaching movement in this connection was taken by Maricopa and Pima Counties in 1949 when they instituted a yearly "Open House." To this Open House they invited two members of all civic, fraternal and church organizations to hear talks on such subjects as "Health Councils," "The Blue Shield and Blue Cross Insurance Plans," "Indians Are People Too" and other like subjects ad infinitum. This plan takes the aims of the Arizona Medical Association through the Auxiliary into every corner of the community and is well deserving of emulation by all counties.

Not the least of the onward moving aid of the Auxiliaries assistance to its Doctors has been done by the Legislative Committee. From the first timid assistance given in the matters of the Basic Science Bill we went on to greater fields until 1948 saw the Legislative Committee asking active support of the following bills:

1. Bill for construction of a surgical unit to the State Welfare Sanatorium. (This bill passed.)
2. Hospital Survey Act which enabled Arizona to obtain federal funds for non-profit hospital facilities. (This passed with a cut in appropriation.)
3. Permissive legislation to assess property for care of T. B. residents.

Letters to all Auxiliary members asked for active support of these bills. In addition, the State Auxiliary, through the fine work of its Legislative chairman, Mrs. Leslie B. Kober, helped with the passage of the Child Colony Bill. This record has put the Arizona Woman's Auxiliary right into the affairs of our state government so far as they concern the medical welfare of our people. At the present moment we are becoming conversant with all phases of U. S. Senate Bill No. 5, introduced by Senator Murray of Montana, which would provide a national health insurance and public health program. At any time that we are called upon to act for our Doctors in this respect the Auxiliary will be informed and ready to help.. Through the Bulletin we are keeping in touch with any action the National Auxiliary may take on this subject.

Were we to mention the names of all those who have served the Arizona Woman's Auxiliary well and faithfully, we would have no space for the sweeping events we have helped to formulate. However, there is one name that must be a part of this record—Mrs. Jesse D. (Clarise) Hamer. She was one of the charter members of the Maricopa Auxiliary and from the beginning has given of herself and her talents in full measure to every phase of Auxiliary service, culminating in election as President to the National Auxiliary, and now National Historian. It is good to be a part of an organization that has produced such a shining light as Mrs. Hamer.

We have called this short record "The Story of a Beginning," because that is just what it is. The Woman's Auxiliary to the Arizona Medical Association is still a beginner and "The goal of yesterday will be the starting-point of tomorrow." (Carlyle). So with each new year we shall "discharge the high duties that devolve on us, and carry our race onward" (Garrison).

ABSTRACT

"UNDECYLENIC ACID IN PSORIASIS AND NEURODERMATITIS"

Henry Harris Perlman, M. D.,
Philadelphia

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

139: 444, February 12, 1948

Perlman, during unsuccessful attempts to cure tinea capitis with undecylenic acid, noticed unusual exfoliation of the scalp. This observation caused him to try the same drug in the treatment of psoriasis. He reports on a series of 17 psoriatic patients who received the treatment. They all showed improvement. Eight patients with neurodermatitis were likewise treated this way. They also improved.

The author states that although definite claims cannot yet be made for this form of treatment for psoriasis and neurodermatitis, the results warrant a continuation of research on this and other unsaturated fatty acids in the treatment of these and other skin diseases.

DEPARTMENT OF THE ARMY
Office of the Secretary of the Army
Washington 25, D. C.

18 May, 1949

Dr. Frank J. Milloy, Secretary
Arizona Medical Association
15 East Monroe Street
Phoenix, Arizona.

Dear Dr. Milloy.

The Department of the Army is urgently in need of Public Health Officers to serve in a civilian capacity with the occupation forces in Japan. These positions, which involve supervision of Japanese prefecture (state) health departments in all phases of preventive medicine and medical care programs, offer an excellent opportunity for broad experience in public health. We will greatly appreciate your assistance in locating qualified and interested candidates for this program.

Minimum acceptable qualification requirements are a degree in medicine plus one year internship. Experience in public health is desirable but is not mandatory.

The salary for these positions is $6235.20 per annum plus 10% post differential with quarters provided at no cost to the employee. Individuals selected for appointment must agree to remain a minimum of two years. Transportation is furnished to and from Japan. Dependents may join the employee in approximately 6 to 8 months after his arrival in the command.

It will be appreciated if you will publicize this information and advise interested applicants to make formal application by submitting Civil Service Commission Standard Form 57 to this office. Forms may be obtained from any Class A Post Office.

The necessity for immediate recruitment of qualified and suitable personnel cannot be overemphasized. Your assistance in this vital program will be most beneficial to the Department of the Army.

Sincerely yours,
CHARLES C. FURMAN
Chief, Recruitment Section
Overseas Affairs Branch
Civilian Personnel Division.

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